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A Lecture
ON
THE ALBUMINURIA OF PREGNANCY AND THE KIDNEY OF PREGNANCY.

Delivered at University College Hospital on Nov. 8th, 1905,

BY G. F. BLACKER, M.D. LOND., F.R.C.P. LOND., F.R.C.S. ENG.,
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GENTLEMEN,—I have chosen for my lecture to-day the subject of the albuminuria of pregnancy and the kidney of pregnancy on account of their important relation to eclampsia and because recently I have had under my care in the hospital a typical case of this condition. The details of the case are as follows.

CASE 1.—A patient, register No. 1773, aged 42 years, 5-para, was sent into the University College Hospital on Sept. 7th, 1905, by Mr. W. S. Rooke of Finchley. She was seven months pregnant and was complaining of dimness of vision, slight œdema of the legs, and frequency of micturition. The œdema had been present a month and the frequency of micturition and dimness of vision for about a fortnight. She had previously been a perfectly healthy woman and had had five normal pregnancies and confinements, the last having occurred nine years ago. On admission the pregnant uterus was found to reach up to a height of seven and a half inches above the symphysis pubis and there was slight œdema of both ankles. The arterial tension was a little raised but the heart was normal. The urine was acid, normal in colour, contained $\frac{1}{5}$th albumin, and hyaline, granular, and a few epithelial casts. The specific gravity was 1012 and the amount passed in the first 24 hours was 48 ounces. On admission the patient was placed upon a strict milk diet and ordered half a drachm of pulvis jalapæ compositus every morning. Two days after admission my colleague, Mr. Percy Flemming, kindly examined the eyes and found the following conditions present. There were numerous white areas of exudation in each fundus, also numerous flame-shaped hæmorrhages and slight neuritis. There were no signs of old-standing disease. Vision: right eye, J.19; left eye, J.16. As vision appeared to be failing rapidly he strongly recommended the induction of premature labour. On Sept. 11th, four days after admission, the amount of urine passed in the 24 hours was 17 ounces (some being lost); it contained $\frac{1}{3}$th albumin, 1·15 per cent. urea, and had a specific gravity of 1012. At 8 P.M. of this day two bougies were introduced into the uterus and on the 12th, 16 hours after the introduction of the bougies, the patient was delivered of a dead child 15 inches in length. From this time her improvement was most marked. On the 13th 26 ounces of urine were collected in the 24 hours; it contained $\frac{1}{5}$th albumin and the urea had increased to 2·75 per cent. Vision had improved to J.12 right eye and J.4 for letters left eye. On the 18th the urine contained merely a trace of albumin and on microscopical examination no casts but a few pus cells were found. On the 19th her sight was tested again and found to be J.1 for either eye. Involution of the uterus occurred normally and the temperature did not rise above 99·6° during her stay in the ward. On the 20th Mr. Flemming again examined her eyes and found that the exudation was rapidly breaking up and becoming absorbed in both eyes. The patient's general condition continued to improve and on Oct. 9th she left the hospital, the urine now containing only a faint trace of albumin. On Nov. 4th she was again seen by Mr. Flemming and he found the vision of each eye normal; there was no neuritis and the soft-edged white patches of exudation had disappeared. Between the disc and the macula were several small, bright, well-defined spots. On the 7th an examination of her urine showed that it was acid, contained $\frac{1}{5}$th albumin, and 1·7 per cent of urea. There were no casts on microscopical examination. The specimen was not, however, a mixed one of the 24 hours' urine and the patient was taking practically an ordinary diet, except that she was eating very little meat.

This case is, I think, a good example of the albuminuria of pregnancy, no doubt due to the so-called kidney of pregnancy. The great importance of such a case lies in the fact that if the condition is not recognised and properly treated eclamptic convulsions are very likely to develop. As you all know, eclampsia is one of the most dangerous complications of childbirth. It is attended with a maternal mortality of from 20 to 30 per cent. and a fœtal mortality of from 40 to 50 per cent. or even more. In the Registrar-General's report for 1903 409 deaths are attributed to puerperal convulsions and if we estimate the mortality at 20 per cent. some 2045 cases occurred during that year in England and Wales. I do not, however, propose to discuss eclampsia to-day but a condition which undoubtedly predisposes to it and not infrequently precedes it—namely, the albuminuria of pregnancy and the so-called kidney of pregnancy. Dührssen found albumin in the urine in 96 per cent. of his cases of eclampsia. A small percentage of cases possibly occurs in which there is no albumin in the urine but eclampsia is a disease the exact nature of which still remains to be discovered and we are yet uncertain whether the primary lesion is one of the liver or of the kidneys. If the liver plays the important part attributed to it by some writers on eclampsia then it is not surprising that cases are met with from time to time in which no albumin is found in the urine.

Herman has shown that pregnant women are about fourteen times more liable to acute kidney diseases than are non-pregnant women of a corresponding age and this was the view held by the older pathologists. In 1886, however, Leyden drew attention to the fact that the pathology of the so-called kidney of pregnancy does not correspond to that of acute nephritis or acute Bright's disease as we generally see it. He pointed out that the kidney of pregnancy is slightly enlarged, its capsule is a little adherent, the cortex is markedly anæmic, while there is usually slight congestion of the medulla, and on microscopical examination there is some fatty infiltration, as he termed it, of the epithelium, more especially that lining the convoluted tubules. I have here a kidney of a woman who died from eclampsia and you see it is a little enlarged; there is marked anæmia of the cortex, with some congestion of the medulla. Microscopic sections show that the epithelium of the tubules is somewhat compressed by an exudation into their lumen but there are no fatty changes in the epithelium and the vessels are healthy and present in their normal number, although the cortex is so markedly anæmic. The liver from the same case shows numerous patches of necrosis scattered throughout its substance round the smaller portal vessels, with destruction of the liver cells. Practically the whole of the post-mortem changes found in this case were in the liver, and the kidneys, except that the cortex was markedly anæmic, were hardly affected at all. Indeed, as you see, the kidneys in this patient dying from eclampsia are a good example of the condition described by Leyden as the kidney of pregnancy, except that there is no fatty degeneration of the epithelium. The details of the case are as follows.

CASE 2.—The patient, Register No. 43, a primipara, 23 years of age, was admitted into University College Hospital in December, 1903, under the care of Dr. Herbert R. Spencer. She was five months pregnant and was suffering from eclamptic convulsions. She was treated by morphia, the cervix was fully dilated by Bossi's dilator to 11 centimetres, and dead twins were extracted. The patient, however, died eight hours after delivery, having had 22 fits in 30 hours. At the post-mortem examination the conditions which I have described to you were found in the liver and the kidneys.

In discussing the question of albumin in the urine in pregnancy you must remember there are three main causes for its presence. Albumin is found in cases of congestion of the kidneys, in cases of toxic poisoning, and in cases of true Bright's disease, the so-called renal albuminuria.

Before I proceed to discuss the causation of the presence of albumin in the urine in pregnant women I will consider the frequency of its occurrence. Statistics on the point are very divergent and that is because not all the observers have employed the same tests for the recognition of the albumin. Some have included cases in which only a mere trace of albumin was found on careful chemical examination, while others have counted only those cases in which the amount of albumin was of pathological importance. Bumm estimates that albumin can be found in the urine of about 10 per cent. of pregnant women if it is examined daily over long periods of time and if mere traces of albumin be

counted such as may be due to physiological albuminuria or to catarrh of the bladder, a not uncommon condition in pregnancy. In 5 per cent. albumin may be present from time to time but in only 1 per cent. is it present to such a marked degree as to require treatment. Ingerslev examined the urine of 600 pregnant women and found albumin present in 29, or 4·8 per cent., but in only 6, or 1 per cent., were casts found. In the Guy's Hospital Charity, of 200 cases examined albumin was found to be present in the urine in four, but two of these cases were probably instances of chronic Bright's disease. Looking up my own notes I find that in the last 100 cases of labour which I have attended, in every one of which the urine has been examined one or more times during pregnancy, in one only was there an amount of albumin present requiring treatment. Hofmeier found albumin present in two of 175 cases of pregnancy, or 1 in 85. So I think we shall not be far wrong if we estimate that the albuminuria of pregnancy occurs in 1 per cent., or at the outside 2 per cent., of all cases of pregnancy. During labour albuminuria is much more frequently met with. Ingerslev found it present in 50 cases out of 153 cases of labour, or one in every three; it has, however, no pathological importance and is a temporary condition, no doubt the result of some interference with the renal circulation from the increased intra-abdominal pressure accompanying the labour pains.

When you discover albumin in the urine of a pregnant woman you must bear in mind that it may be due to three very distinct conditions. The patient may be the subject of acute nephritis or acute Bright's disease; she may be suffering from chronic nephritis aggravated by the pregnancy, or she may be suffering from the albuminuria of pregnancy and the so-called kidney of pregnancy which, as I have pointed out, does not correspond quite to any of the varieties of acute nephritis or acute Bright's disease.

In discussing the causation of the so-called kidney of pregnancy, with its accompanying albuminuria, there are three or four etiological factors to be considered. It may be due to congestion or to anæmia of the kidney produced by circulatory disturbance, or it may be due to pressure on the ureters, the pressure interfering with the functions of the kidney; or it may be due to the presence of toxic materials in the blood of the mother. The view that it is due to anæmia of the kidney as the result of vaso-motor disturbances and spasm of the arteries is supported by the pathological changes which you find in the kidney post mortem. It is markedly anæmic, although the vessels are present in their normal number and unaltered in structure. The epithelium of the kidney in some cases shows fatty degeneration. In other instances it shows practically no change at all, and in many cases of this kind the kidneys probably regain their functions completely. What the cause of such a circulatory disturbance may be is difficult to determine, but it is well known that the renal circulation is greatly affected by all the reflex stimuli influencing the vaso-motor system. Is it the result of some reflex stimulus from the uterus or is it due to some toxic materials circulating in the blood of the mother? Such poisons might act either through the central nervous system or on the arteries directly. At any rate, whatever the cause, Spiegelberg's view is probably correct, that in many cases the kidney of pregnancy has its origin in some disturbance in the renal circulation. Recently an interesting hypothesis has been brought forward in connexion with the causation of eclampsia—viz., that it is in some measure the result of faulty action on the part of the thyroid gland. As you know, during pregnancy the thyroid gland hypertrophies and the interesting clinical fact has been observed by Klein and others that in cases of albuminuria of pregnancy the normal hypertrophy of the thyroid gland is often wanting. Nicholson, who is one of the chief exponents of this theory, thinks that the internal secretion of the thyroid gland is normally counterbalanced by the internal secretion of the suprarenal capsules. The specific action of iodothyrin is to dilate the blood-vessels and to lower the blood-pressure, while the internal secretion of the suprarenal capsules tends to constrict the vessels and to raise the blood-pressure. If the thyroid gland is not acting properly, that is to say, if there is a deficiency of the internal secretion of the thyroid gland, the secretion of the suprarenal capsules produces a rise of blood-pressure and constriction of the arterioles. This theory further supposes that various toxic bodies which should be acted upon by the secretion of the thyroid pass on to the liver unchanged and throw increased work upon that organ.

Against the view that congestion of the kidneys is an important factor is the fact that anæmia of these organs is most commonly present at post-mortem examinations, not congestion. Then again, although no doubt pressure by the pregnant uterus upon the ureters throughout the greater part of their course is possible, it is difficult to see how any such pressure can be exerted upon the renal vessels. Pressure upon the ureters may, however, play a part in deranging the function of the kidneys. The view most in favour at the present time is the one enunciated as far back as 1848 by Virchow—viz., that the albuminuria is due to the action of some toxic material circulating in the mother's blood. He pointed out that the kidneys are the organs of the body which are most frequently disturbed during the course of pregnancy and that functional disturbance of these organs, as evidenced by the presence of albumin in the urine is quite common during pregnancy and frequently associated with disturbances of the functions of the liver. The toxæmic theory of the causation of the albuminuria supposes that it is due to the action of certain toxins circulating in the blood of the mother. Pregnancy calls for increased metabolism on the part of the maternal tissues and for increased work upon the part of the maternal excretory organs, the liver, kidneys, and intestinal canal. In a healthy woman these processes are normally carried out without danger to the mother or the child, but if for some reason there is any failure of the functions of any of the excretory organs then various toxic bodies accumulate in the blood and tissues of the mother. Such a condition of toxæmia is regarded as the main exciting cause of many of the graver disorders of pregnancy. Although many of the original experiments of Bouchard and others as to the diminished toxicity of the urine and the increased toxicity of the blood serum in the pregnant woman have been shown to be faulty in detail, yet the clinical history and anatomical findings are presumptive evidence in favour of this theory, and it at present holds the field. The fact that in some fatal cases of eclampsia the main pathological changes are met with in the liver and in other cases in the kidney would indicate that one or other of these organs may be mainly at fault in different cases.

We cannot spend more time over the theory of the toxæmia of pregnancy but we may consider it probable that this toxic condition of the mother's blood is one of the causes of the development of the kidney of pregnancy and of the occurrence of albumin in the urine. Whether the poisons act on the central nervous system, on the vessels of the kidney, or on the renal epithelium we cannot say, but probably they act in one or more of these ways, and produce amongst the other disorders associated with pregnancy albuminuria, the kidney of pregnancy, and in some cases eclamptic convulsions. Are there any predisposing causes or preceding conditions which occur in women who subsequently develop either the kidney of pregnancy or eclampsia? If any such exist we know little or nothing of them. It is, however, possible that the same explanation may hold good as that put forward by Leube for the occurrence of physiological albuminuria—viz., that these patients have an abnormality of the renal structures in the form of a diminished resistance in the renal filter to the passage of albumin. May it be possible, then, that women who exhibit the albuminuria of puberty or physiological albuminuria are more prone to develop the albuminuria of pregnancy and subsequently to suffer from eclampsia? A French observer, Mdlle. Stein, has recently attempted to show that women who come of a so-called bilious stock—that is to say, whose parents have frequently had attacks of biliousness and evidence of hepatic insufficiency—are more liable to bilious headaches, to the excessive vomiting of pregnancy, and to the development of albumin in the urine during pregnancy. Possibly further researches in this direction may throw some light upon this subject. Whatever view we may take of the causation of eclampsia, it is difficult to see why an apparently healthy woman should suddenly develop eclamptic convulsions. I think it is more than probable that few if any of the women who suffer from eclampsia are really healthy, and if we were able to examine the urine of all such patients before the onset of the convulsions we should find albumin in practically every case. This is why, as I have told you, the albuminuria of pregnancy is of such great importance.

The most constant symptom in patients suffering from the kidney of pregnancy is the presence of albumin in the urine. The quantity varies considerably: it may amount to a half or a quarter or only a tenth of the urine examined. (Edema of

the lower limbs is constantly present and the patients complain of headache, especially frontal, at first intermittent and subsequently becoming continuous. Some failure of vision is very frequently complained of and in the first case which I have related to you the first thing the patient noticed was dimness of vision. She consulted Mr. Rooke for this and he, recognising at once the gravity of the woman's condition, sent her into the hospital. As a rule the defect amounts merely to a dimness of sight, the patient cannot see to read or to work as she used to; it tires her eyes and she has to give it up. In other cases complete blindness may occur for a time or there may be hemianopia or diplopia. The loss of sight is usually associated with the presence of albuminuric retinitis, hence the examination of the optic discs is of the utmost importance, because if there be changes in the retina it may be possible from their character to form an opinion as to whether the attack is a recent one or whether the patient is the subject of old kidney disease. Another symptom which occurs is vomiting, but this is not constant nor is it as a rule severe in character. Later dyspnœa may develop and the heart may become affected.

The specific gravity of the urine varies in different cases with the amount passed. Hyaline, granular, and epithelial casts are very constantly present. The percentage of urea is usually diminished. The diminution of this constituent of the urine together with the presence of albumin, if the urea estimation is made on several occasions of a sample of the total urine passed in the 24 hours, is of considerable value. A single examination of the urine with the discovery of a diminished amount of urea is of little or no value, but a progressive diminution of the amount of urea on successive examinations is of great value. In Case 1 a few days after admission the urea was found to amount to 1·1 per cent. After delivery of the child it increased to 2·7 per cent. and subsequently to 3·6 per cent. At the present time it is again diminished, but this observation is based upon one specimen of the urine only and not upon a mixed sample of that passed during the 24 hours.

The diagnosis as to whether a patient is suffering from the kidney of pregnancy or whether she has acute Bright's disease or an acute attack of nephritis in a kidney the seat of chronic disease may be exceedingly difficult to make. The following case is of interest in this connexion.

CASE 3.—The patient, aged 23 years, was eight months advanced in her first pregnancy. She had suffered from scarlet fever when a child but had no history pointing to the presence of any kidney disease. She had been perfectly well during her pregnancy until the last six weeks; for this time there had been some swelling of the ankles. About the beginning of December, 1900, the patient had an attack of severe headache and loss of sight, (?) hemianopia, for three days and at this time the urine is said to have contained two-thirds albumin. She was treated and returned to her home in London from the country. On Dec. 21st she was seen by Dr. H. R. Roger-Smith of Hampstead, who found some puffiness of the face and hands and slight œdema of the abdominal walls and ankles. The urine had a specific gravity 1027, contained two-thirds albumin, and numerous hyaline and granular casts and pus cells. Ophthalmoscopic examination of the eyes showed no morbid changes. On the 26th I saw her in consultation with Dr. Roger-Smith. The amount of albumin had now diminished under treatment to one-third but there was definite swelling of the optic disc in the left eye and obscuration of its inner and lower margin. A satisfactory examination of the right eye could not be obtained. It was decided to place the patient upon a strict milk diet and to induce labour if she did not improve. On the 28th there was marked optic neuritis in the right eye and the albumin still remained at one-half, although the amount of urine had markedly increased. The sight of the right eye became rapidly worse and the general condition did not show any improvement, so that on Jan. 1st two bougies were inserted into the uterus. The patient was given chloroform and it was noted that during the operation the pulse became extremely rapid and feeble. At 6.20 P.M. on the 2nd, 26½ hours after the introduction of the bougies, a living child was born. During delivery the pulse again became very rapid and feeble. At 12 midnight a syncopal attack occurred, the extremities became very cold, and there was great pallor. No evidence of any internal hæmorrhage was present and there was no external bleeding. At 2 A.M. the patient had some turning of the eyes to the left, became rigid and unconscious, and died 20 minutes later, apparently after a slight uræmic fit. This, I am inclined to think, was not an example of the so-called kidney of pregnancy but a case of acute nephritis ending in death from uræmia.

In attempting to make a diagnosis between the three conditions—acute nephritis or acute Bright's disease, chronic Bright's disease, and the so-called kidney of pregnancy, you have to rely upon the history of the previous pregnancies if there have been any, the state of the urine, the duration of the pregnancy at the time the symptoms first occur, and the condition of the eyes. The following case is a good example of chronic Bright's disease with acute exacerbations during pregnancy, ending in death from uræmia.

CASE 4.—The patient was sent into the hospital on Dec. 23rd, 1901, by Mr. M. Clover, suffering from eclampsia. She was a primapara, 24 years of age, six and a half months pregnant, and had had five fits before admission. The urine contained one-half albumin and epithelial casts. The bowels were very constipated. Three more fits occurred after admission. On ophthalmoscopic examination Mr. Flemming found in the right eye œdema of the disc obscuring the vessels and some patches of œdema of the retina, and in the left eye œdema of the disc and on its outer side a well-marked silver wire artery and some white patches of exudation. Ten days after admission a medium-sized hæmorrhage was observed. The vision was as follows: right eye, J.20; left eye, J.14. The urine still contained albumin but the patient improved under treatment and was ultimately delivered at home of a dead child without any recurrence of the fits. The child probably died just before or during labour. Later examination of the eyes showed atrophy of the discs and marked retinal changes. In February, 1903, she was again admitted under the care of Dr. Herbert R. Spencer, eight months pregnant. The urine contained a thick cloud of albumin. Examination of the eyes showed internal strabismus on the right side and there had evidently been a hæmorrhage into the nucleus of the sixth nerve, with involvement of the facial nerve. The vision was as follows: right eye, J.16 at 7 inches; left eye, J.2 at 10 inches. Labour was induced with Bossi's dilator and a living child was extracted who survived 20 minutes. The patient made a good recovery and left the hospital, the urine still containing some albumin and the vision being: right eye, J.14; and left eye, J.2 at 6 inches. In March, 1904, she was readmitted under the care of Dr. J. Rose Bradford in a very drowsy condition, with contracted pupils and slight œdema of the sacrum and the ankles and passing her urine and fæces under her. The urine contained one-fourth albumin. Ophthalmoscopic examination showed signs of old retinitis in both eyes, with secondary atrophy of the papillæ. The patient died from uræmia four days after admission and the post-mortem examination revealed the presence of contracted white kidneys, apparently of some years' duration. This case illustrates well the fact that an examination of the eyes will enable you to form a very good opinion as to whether a patient is the subject of recent or old-standing kidney disease.

The distinction between a case of chronic and acute renal disease is usually not difficult to make. You will be guided by the history, the symptoms, the condition of the urine, the presence or absence of cardio-vascular changes, and an examination of the eyes. The diagnosis of the so-called kidney of pregnancy from acute nephritis or acute Bright's disease is much more difficult and may be impossible. No doubt the one condition frequently merges into the other. If there is no history of any other cause than the pregnancy itself, if the œdema and albuminuria occur for the first time in the later months of pregnancy, if the changes in the urine are not very marked and the symptoms readily and quickly yield to treatment then it is probable that the patient has only had the so-called kidney of pregnancy. It may, however, be impossible to come to any definite conclusion unless you are able to follow up the case and its after-history, and even then you may still be left in doubt. The next question to consider is—What dangers does the kidney of pregnancy expose the patient to? They are mainly three in number: first of all there is eclampsia, which occurs in about one in every five cases of the kidney of pregnancy; secondly, there is the subsequent development of chronic nephritis; and thirdly, the danger of partial or complete loss of vision due to the changes in the eye. Another danger that will occur to you is that of uræmia but when this takes place the case is more likely to be one of acute nephritis or acute Bright's disease than of the kidney of pregnancy.

An important consideration is the degree of predisposition

which a patient with the kidney of pregnancy has to eclampsia. Is she likely to develop eclampsia if the albuminuria is not properly treated? It is difficult to answer this question because patients with the kidney of pregnancy do not die and we do not know with certainty how many patients have had albuminuria before the onset of the eclamptic convulsions. It has, however, been computed that one patient out of every five with albuminuria due to the kidney of pregnancy develops eclampsia and it is because of the possibility of such an occurrence that the albuminuria of pregnancy is such an important condition.

A further question we have to try to answer is, Are these patients entirely cured or do they become the subjects of chronic Bright's disease? A large number of observations have been made on this point. Koblanck investigated 77 cases—47 primiparæ and 30 multiparæ. In 14 cases the urine became solid on testing. In 26 there was a copious precipitate of albumin and the remaining 37 had one-tenth albumin or rather more. In 37 of the patients the albumin had entirely disappeared in two weeks from the time of the patient's confinement. As Koblanck points out, however, it is necessary to keep such patients under observation for long periods of time and out of these 77 cases further observation showed that 46 became quite well, 13 had physiological albuminuria from time to time, 12 had evidence of catarrh of the urinary passages, and 5 or 6·5 per cent. developed chronic nephritis. These figures possibly are not strictly accurate since they refer entirely to hospital patients and no mention is made of their previous histories. But even among hospital patients, a class of people who do not take much care of themselves, only 6 per cent. of these cases of the albuminuria of pregnancy developed chronic Bright's disease. Unfortunately, we have no means of determining whether a patient who has albumin in the urine during pregnancy will develop chronic kidney disease or not. It does not depend upon the quantity of albumin found in the urine or the length of time during which it is present. Many patients with a small quantity of albumin will become the victims of chronic Bright's disease, whilst others who have had relatively large quantities of albumin present will make a complete recovery. (This is, of course, in accordance with the fact that the amount of albumin alone affords little evidence of the actual condition of the kidney.)

Another point to be noted about the kidney of pregnancy is that it tends to recur in subsequent pregnancies but mainly when it occurs for the first time in the early months of pregnancy. The prognosis of this condition if properly treated is decidedly good. Charles has recorded 100 cases of the albuminuria of pregnancy treated by milk diet, with complete recovery of all the mothers, and with 75 per cent. of the children born alive. If the frequency with which eclampsia follows the kidney of pregnancy be placed at 20 per cent. then 20 women of this series were saved from the dangers of eclamptic convulsions. The prognosis of any individual case as regards the immediate outlook—that is to say, with regard to the course of the case while it is under observation—depends mainly on the effect of treatment. If the œdema continues the vision remains impaired, the albumin does not diminish, and the urea remains below the normal, the outlook is grave, and labour should be induced. If the symptoms remain after the induction of premature labour the patient is especially liable to develop one of the sequelæ, either eclampsia or chronic nephritis or uræmia. If the patient develops eclampsia the prognosis is exceedingly grave. The death rate of eclampsia is from 20 per cent. to 30 per cent. of the mothers and 50 per cent. or more of the children.

We must now pass on to consider whether we can prevent the onset of any of these sequelæ. Can we prevent the albuminuria of pregnancy developing into anything further? In the great majority of cases this can be done if the case is recognised and efficiently treated. The enormous importance of examining the urine of every pregnant woman for albumin is self-evident. If it were possible always to do this the number of cases of eclampsia would show a very marked diminution. Eclampsia is to a large extent a preventable disease, but unfortunately many patients do not come under the care of their medical man until labour begins and the systematic examination of the urine during the progress of the pregnancy is very infrequently carried out. The importance of such an examination cannot be over-estimated. If albumin is found in the urine then by appropriate treatment you can, to a very great extent, safeguard the patient from the development of either eclampsia or uræmia. The statement of Ribemont Dessaignes "Eclampsia occurs almost entirely amongst women whose urine has not been examined during pregnancy," is undoubtedly true. Dührssen, too, points out that he has not seen a case of eclampsia following the kidney of pregnancy where proper treatment has been carried out during the pregnancy.

The treatment is such as you would resort to in a case of acute Bright's disease. The patient must be confined to bed and placed upon a strict milk diet. Absolute rest in bed is of the utmost importance and it must be insisted upon, although the patient and her friends may not see the necessity of it. Five to six pints of milk should be taken in the 24 hours and the best method of giving it is a little at a time—that is to say, from four to six ounces every hour and a larger dose the last thing at night and the first thing in the morning. The advantage of such a milk diet is that it leaves a very small residue to be disposed of and promotes very pronounced diuresis, no doubt from the large quantity of water taken with the milk. In these conditions the œdema usually quickly disappears, the albumin diminishes, and the vision, if it is affected, becomes partially restored. If the patient cannot take milk then you may allow her to have soup made with milk and flavoured with vegetables and arrowroot and other farinaceous foods, but you should keep her on milk as much as possible. Also important, but not so important, are free purgation with saline purgatives, such as pulvis jalapæ compositus, and the use of hot-air baths. Saline infusion may be carried out, half a pint being injected under either breast daily. You may also administer ordinary diaphoretics, such as liquor ammoniæ acetatis.

One of the most important problems in the treatment of such a case is, Shall you or shall you not induce premature labour? In all cases where medical treatment does not quickly produce an amelioration of the symptoms premature labour should be induced, and especially is this the case if the failure of vision continues, even if the other symptoms improve. At the same time, you must bear in mind that in patients who are gravely ill the induction of premature labour is by no means devoid of danger and may bring about the very condition—namely, eclampsia or uræmia—which you are trying to avoid. The third case which I have related to you is a good example of this danger. In most cases of the kidney of pregnancy the induction of premature labour is, however, a safe and very satisfactory proceeding.

The last point to which I wish to call your attention is the question as to whether women the subjects of acute or chronic nephritis should be allowed to marry. A patient suffering from acute nephritis does not usually contemplate such a step, but it is otherwise with the sufferers from chronic kidney disease. You must remember that pregnancy throws a great strain upon the kidneys of a woman and the occurrence of pregnancy in a patient suffering from chronic Bright's disease usually markedly aggravates the condition and often threatens the patient's life. Such patients should be recommended not to marry or, if they will, to avoid pregnancy. A very interesting point upon which we require further observations is whether women who have suffered from the albuminuria of puberty or physiological albuminuria after that age are more prone than others to develop albuminuria if they become pregnant. This is a matter upon which many of you when you enter general practice may well carry out inquiries, since you will have the advantage of seeing many of your patients passing through both the stages of girlhood and womanhood. Whether these functional disorders of the kidneys predispose to the albuminuria of pregnancy or to eclampsia is a problem we must leave for the future to decide.

EXTENSION OF NORTHWICH INFIRMARY.—Katharine Duchess of Westminster opened the new wing of the Victoria Infirmary at Northwich on Dec. 9th. Additional beds are provided, together with a good operating theatre, as well as beds for surgical cases. Mrs. Kay of Davenham, lady president of the Northwich Division of the Soldiers' and Sailors' Families Association, unveiled a brass tablet, placed in the corridor of the new wing, to the memory of the ten men from Northwich who lost their lives for their country during the late war in South Africa. The committee in charge of the memorial had £500 left over which it devoted to the infirmary.

A CASE OF CHRONIC PANCREATITIS PROBABLY STARTING IN AN ACCESSORY PANCREAS.

BY A. W. MAYO ROBSON, D.Sc., F.R.C.S.

THE much greater importance to my mind of the subject of chronic pancreatitis than has as yet been accorded to it by the profession generally and the more exact pathological observations which it has been possible to make in this instance than usually happens in such cases have led me to present a somewhat detailed report of the following case of interstitial pancreatitis. The case also serves to demonstrate certain facts bearing on the diagnosis, prognosis, and etiology of the condition as well as the importance of the blood changes which I think frequently accompany the disease.

A man, aged 25 years, was seen with Dr. Stanley Smith on Jan. 11th, 1905, on account of deep jaundice with serious deterioration of health, accompanied by loss of weight and strength. He gave a history that he had been out big game shooting in Uganda and had had an attack of fever, from which he made a good recovery, returning home in September of last year in fairly good health. In October he had what he took to be a return of the fever, the attack being ushered in by a rigor and followed within a few days by jaundice, which gradually deepened, but he had absolutely no pain in the abdomen or elsewhere. He lost his appetite forthwith and speedily began to lose flesh, so that when I saw him his weight was less by a stone than on his return home. There had been neither sickness nor vomiting and no more rigors. His pulse had been very slow (from 40 to 50) and the temperature subnormal. These symptoms continued up to the time of my seeing him, when I found him suffering from deep, almost black, jaundice and from anæmia. The liver reached well below the costal margin almost to the umbilicus, but the spleen could not be felt. A little tenderness was elicited an inch above the umbilicus and half an inch to the right of the middle line where I thought I could feel a slight fulness, but this was indefinite. No dilatation of the stomach could be made out and beyond the jaundice with the pale motions and dark urine no other physical signs could be elicited. The motions were bulky, but not frequent, and there was no tendency to diarrhœa. The tongue was somewhat coated. Chronic pancreatitis was suspected and the urine and fæces were sent to Dr. P. J. Cammidge for examination, the following being his report:—

Urine.—Reaction, acid. Specific gravity, 1014. Albumin, *nil*; some nucleo-proteid. Dextrose, *nil*. Pentose, *nil*. Maltose, *nil*. Glycuronic acid, *nil*. Indican, marked reaction. Ferric chloride reaction, negative. Bile pigment, much. Microscopically, a few bile stained epithelial cells. Pancreatic reaction: "A," many fine crystals, soluble in 33 per cent. sulphuric acid in one-half to three-quarters of a minute; "B," ditto, ditto. (Fig. 1.)

FIG. 1.

Crystals obtained from the urine by Cammidge's reaction in a case of interstitial pancreatitis.

Fæces.—Reaction, alkaline. Stercobilin, traces. Microscopically, crowds of fat globules, many fatty acid crystals, much vegetable tissue, some partially digested muscle fibre, epithelial cells, and granular débris. Total fat, 56·8 per cent.; neutral fat, 29·5 per cent.; fatty acids, 27·3 per cent.

These results indicate a pancreatic lesion of an inflammatory nature. The character of the crystals obtained from the urine and the relation of the "A" and "B" reactions suggest that, while the condition is probably of some standing, there is at present active inflammation of the gland. The large amount of bile pigment in the urine and its almost complete absence from the fæces, together with the high percentage of fat and the presence of muscle fibre in the latter, point to an obstruction of the common duct as the probable cause of the condition. The considerable reaction for indican given by the urine suggests that there is some catarrh of the upper part of the intestine.

As medical treatment with rest in bed and care in diet had been thoroughly tried without any benefit an operation was advised. This was performed at a nursing home on Jan. 16th. On opening the abdomen by a vertical incision through the centre of the right rectus a little ascitic fluid, deeply bile-stained, escaped. The liver was found to be enlarged nearly to the umbilicus. It was dark and mottled and showed evidences of cirrhosis, apparently due to biliary stagnation. The gall-bladder was thickened but not greatly distended, though it had evidently been inflamed, as adhesions were found between it and the cystic and common ducts and the neighbouring viscera, stomach, duodenum, and colon. The foramen of Winslow was obliterated by adhesions. The head of the pancreas was much enlarged and widened in area so that it extended some distance up by the side of the common duct, which it enveloped. A hard nodule could be felt in the head of the pancreas, which hardness could be traced into the wall of the duodenum and which faded off into the body of the pancreas, the body and tail of the organ being apparently of almost normal consistency. Adjoining the portion of the pancreas, which was stony hard, could be seen a number of lobules of the pancreas, which were firmer than normal and very definitely outlined, a condition which I had seen in a number of cases of chronic interstitial pancreatitis on which I had previously operated. The localised hardness raised the question as to whether there might be a growth of the papilla extending into the duodenum or whether there might possibly be a pancreatic calculus impacted in the duct. I therefore felt it desirable thoroughly to explore the pancreas and to this end the visceral peritoneum was incised over the duodenum and stripped from the pancreas. An incision was made into the indurated area and a portion of the hardened mass was removed. Although very hard it did not cut like cartilage and had not the appearance of a malignant growth. No calculus could be found. The incision in the pancreas was then closed by several catgut sutures and the peritoneum replaced. The duodenum was then opened in the centre of the descending portion, when a hard nodule was felt on the inner side of the papilla and this proved to be continuous with the stony hard lump in the head of the pancreas. I suspect that it was an accessory pancreas in the wall of the duodenum. It was not ulcerated and did not give me the impression of being malignant. The common bile-duct was clearly compressed by the hardened head of the pancreas and in order to establish drainage of the infected bile the only desirable course seemed to be that of performing a cholecystenterostomy. The opening made for exploration into the duodenum was therefore united to one made in the fundus of the gall-bladder by means of a Murphy button and the abdomen was closed without drainage. The operation was unaccompanied by hæmorrhage, as chloride of calcium had been given in 20-grain doses thrice daily for three days before operation and the drug was continued subsequently to operation in 30-grain doses in the nutrient injections for a few days. The after-progress was very satisfactory: the wound healed entirely by first intention and the jaundice began to diminish visibly within two days of operation. His bowels were moved on the fourth day after a dose of calomel, the motions showing the presence of bile. His appetite rapidly returned and after the button had passed on the tenth day he was allowed to take food freely, his appetite being very keen. At first the motions were bulky, frequent, and offensive, evidently due to the passage of undigested milk. Pankreon tablets were therefore given after each meal with the result that the food was better digested and the motions were diminished in number.

An examination of the blood was made by Dr. Cammidge on Jan. 26th with the following result:—

Red corpuscles, 3,472,000 per cubic millimetre. Hæmoglobin, 58 per cent. Hæmoglobin index, 0·85. White corpuscles, 9865 per cubic millimetre. Proportion of red to white corpuscles, 348 to 1. Differential leucocyte count: Polymorphonuclear white cells, 71 per cent.; small lymphocytes, 22 per cent.; large lymphocytes, 4 per cent.; eosinophile leucocytes, 3 per cent.; mast cells, 1 per cent.

At the end of the third week the patient was able to sit up and when he was weighed at the month end he had gained a stone in weight and expressed himself as feeling well. His blood, urine, and fæces were examined again by Dr. Cammidge on Feb. 20th, with the following result:—

Blood.—Red corpuscles, 4,634,000 per cubic millimetre. Hæmoglobin, 92 per cent. Hæmoglobin index, 1·0. White corpuscles, 5855 per cubic millimetre. Proportion of red to white corpuscles, 791 to 1. Differential leucocyte count: Polymorphonuclear white cells, 70 per cent.; small lymphocytes, 22 per cent.; large lymphocytes, 3 per cent.; eosinophile leucocytes, 4 per cent.; mast cells, ½ per cent.

Urine.—Reaction, acid. Specific gravity, 1022. Albumin, *nil*. Dextrose, *nil*. Pentose, *nil*. Maltose, *nil*. Glycuronic acid, *nil*. Indican, trace. Ferric chloride reaction, negative. Bile pigment, faint traces. Microscopically, urates. Pancreatic reaction, "A," a few fine crystals, soluble in 33 per cent. sulphuric acid in three-quarters to one minute; "B," ditto, ditto.

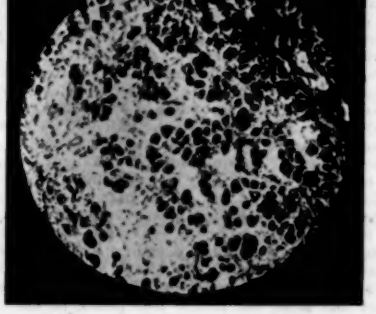
This specimen of urine shows a marked improvement on that examined on Jan. 12th. The pancreatic reaction is now only slight and the amount obtained by the "A" and "B" methods equal, indicating probably the fibrotic changes following the pancreatitis previously found. There is still a faint trace of bile pigment in the urine but it is exceedingly slight compared with the large amount present on the last examination. The indican reaction is very much diminished and is now not more than is at times found in health.

Fæces.—Reaction, alkaline. Stercobilin, a considerable amount. Microscopically, vegetable tissue, granular débris, no fatty globules or fatty acid crystals, no muscle fibre. Fatty acids, 11 per cent; neutral fat, 4 per cent.; total fat, 15 per cent.

On Feb. 20th, when the patient left the nursing home, his weight had increased to 10 stones 9 pounds, it having been 9 stones on admission. It will be seen that whereas before operation the total fat in the fæces was 56·8 per cent., on Feb. 20th it had diminished to 15 per cent.; the fatty acids, which were 27·3 per cent. on Jan. 12th had diminished to 11 per cent. on Feb. 20th; and the neutral fat, which was 29·5 per cent. on Jan. 12th, had diminished to 4 per cent. on Feb. 20th. The blood had also very materially improved, as will be seen on comparing the reports, for as on Jan. 26th the red corpuscles were 3,472,000 per cubic millimetre, on Feb. 20th they were 4,634,000 per cubic millimetre; the hæmoglobin, which on Jan. 26th was 58 per cent., on Feb. 20th was 92 per cent.; the hæmoglobin index on Jan. 26th was 0·85, on Feb. 20th it was 1·0; the white corpuscles, which on Jan. 26th numbered 9965 per cubic millimetre, on Feb. 26th had diminished to 5855; and the proportion of red to white corpuscles, which on Jan. 26th was as 348 to 1, on Feb. 20th was in the proportion of 791 to 1.

Two microphotographs of the portion of pancreas removed are appended. They show a very large increase of the inter-alveolar connective tissue and a thickening of the inter-lobular septa. In the first specimen (Fig. 2) at one place the

FIG. 2.



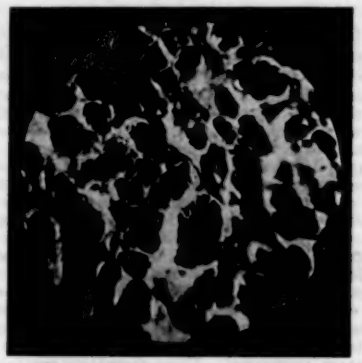
Microscopic section (low power) of portion of head of pancreas removed at operation, showing advanced interstitial pancreatitis.

fibrous tissue has almost completely replaced the true pancreatic gland substance, so that the glandular alveoli are widely separated.

Remarks.—This case illustrates several extremely interesting points in the pathology of interstitial pancreatitis, especially as the case was unaccompanied by gall-stones and was apparently due to an extension of catarrh from the duodenum up the pancreatic duct. I think there can be little doubt that the nodule felt in the walls of the duodenum was an accessory pancreas, as it is not an uncommon site in which these accessory glands are found. The removal of a portion of the inflamed pancreas enabled a histological examination to be made, proving without doubt the nature of the disease and enabling a good prognosis to be given, whereas had the diagnosis been made by feel alone the prognosis would have been doubtful for some time to come, as both the clinical history and the course of the disease had up to the time of operation pointed to malignancy, as in fact did the hard feel of the tumour at the time of operation.

The fact that the interstitial pancreatitis only involved the head of the pancreas and that the body and tail were

FIG. 3.



Microscopic section (high power) of portion of head of pancreas removed at operation, showing interstitial pancreatitis.

probably only involved in the catarrhal form also points to the recovery being ultimately complete. Had the changes in the tail of the pancreas been so extreme, as was the case in the portion removed, it is extremely probable that the ultimate outlook would have been anything but promising, as the tendency of the interstitial fibrous tissue must be to contract and lead to cirrhosis, which in its turn produces diabetes from involvement of the islands of Langerhans. This has been the subsequent course in three out of a large number of cases of chronic pancreatitis on which I have operated; for though immediate recovery from operation occurred in all three cases, in one case eight years, in a second four years, and in a third two years subsequently, glycosuria developed, evidently due to cirrhosis of the pancreas leading to deterioration of the islands of Langerhans.

From the diagnostic point of view this case is interesting as showing the value of "Cammidge's test," a reaction on which some doubt has been thrown by several workers who have attempted this examination but whose methods have evidently differed from those employed by Dr. Cammidge himself. This test is certainly of great help in diagnosis, and though there are several other conditions which may possibly lead to this or a similar reaction in the urine I find that when it is employed along with the clinical symptoms, the physical signs, and an analysis of the fæces it forms a most important help in diagnosis. In this particular case, for example, although the clinical symptoms and physical signs left me little doubt as to the correctness of the diagnosis of chronic pancreatitis the chemical tests and the examination of the blood and fæces made the diagnosis practically certain. From the course that this case was taking I think there can be little doubt but that it would have tended to a fatal termination just as if it had been genuine cancer of the pancreas had not operation been done, for the disease had resisted medical treatment thoroughly and carefully applied.

The blood condition is of great interest in cases of chronic pancreatitis. As shown in this instance anæmia had resulted which rapidly improved subsequently to operation, when a new passage for the bile was made into the duodenum. It might be argued that the deterioration in the blood was dependent entirely on cholæmia, but although cholæmia leads to serious deterioration of the blood I have observed in several cases of chronic pancreatitis where there was little or no jaundice that anæmia has supervened, which has ultimately ended in the pernicious form, where not only the

red corpuscles have seriously diminished in number but the hæmoglobin index has been increased and other signs of pernicious anæmia have developed. Another change in this case worth noting was the beginning of cirrhosis of the liver, this being probably due not only to infection of the bile passages but to the retention of stagnated bile in the ducts. This is also a common sequence, not only of pancreatitis causing biliary obstruction, but also of gall-stones in the common duct and other disease producing biliary obstruction.

This case affords another example of the benefit of surgical treatment in interstitial pancreatitis and is only one of a considerable number of cases that I have operated on since I published a series of over 40 operations for this condition in my Hunterian lectures at the Royal College of Surgeons last year.

P.S.—The patient is at the date of publication of the paper in perfect health.

Park-crescent, W.

THE SURGICAL TREATMENT OF TUBERCULOUS GLANDS IN THE MESENTERY.[1]

BY EDRED M. CORNER, M.A., B.C. CANTAB., B.Sc. LOND., F.R.C.S. ENG.,

SURGEON TO OUT-PATIENTS AT ST. THOMAS'S HOSPITAL; ASSISTANT SURGEON TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET; CONSULTING SURGEON TO THE HOSPITAL, WOOD-GREEN, N.

DURING the last decade it has been the credit of surgery to have shown that many cases, hitherto relegated to the physician and to the pathologist, could be submitted to operation with reasonable hopes of cure or relief. In this communication examples will be adduced to show that the removal of tuberculous glands from the mesentery of the intestine can be followed by complete success; and in conclusion, to show the danger of delay, a case will be quoted which was submitted to operation too late, the glands having led to a general infection of the body, miliary tuberculosis. An authority, quoted later, has pointed out that the mesenteric glands are the second most frequent source of general tuberculous infection of the body. The successful cases and the fatal case brought before you demonstrate that there is yet another field in which surgery can confer its benefits on mankind. A judicious caution must temper our enthusiasm in selecting cases. Experience shows that these glands must form a palpable mass before they should be submitted to surgical treatment. Great care must be exercised in distinguishing tumours due to tuberculous peritonitis from those due merely to tuberculous glands. A child with a moveable tumour in the abdomen, not fæcal, should be submitted to operation. Medical treatment must be pursued throughout. Mesenteric tuberculous glands are by far more frequently found in children than in adults. Professor G. Sims Woodhead[2] found them in 78·7 per cent. of necropsies on tuberculous children—in 11 per cent. the mesenteric was the only lesion present; Dr. W. S. Colman[3] found them in 66 per cent. of tuberculous necropsies; and Dr. J. Walter Carr[4] in 54 per cent. Most recently Dr. W. P. S. Branson[5] found that 22 per cent. of his necropsies, made in the study of abdominal tuberculosis, had this lesion alone. There is therefore a good percentage of cases which the surgeon may cure.

Before introducing to you my cases of surgical interference for tuberculosis of the mesenteric glands it is desirable that some epitome should be made of what is known about the subject generally, as illustrated by the text-books. Professor W. Osler of Oxford says that slight tuberculosis of the mesenteric glands is common in children; it can often be found accidentally post mortem, the lesion which produced it in the meantime having got well and disappeared, but he makes no mention of the possibility of their being amenable to surgical treatment. This omission is easily accounted for by the fact that Professor Osler's text-book is written for and from a physician's point of view. Sir Frederick Treves, to take a surgeon's opinion, mentions that he has operated on three cases, once in an adult; that others have in "many instances" shelled out these tuberculous glands, and, finally, he has seen them diminish in size after a simple exploratory incision, somewhat in the same way that tuberculous peritonitis is known to subside sometimes after a laparotomy. The other text-books add nothing further to our knowledge, if they mention the affection at all. The most recent contribution to the subject is that of Dr. Branson in the Transactions of the Royal Medical and Chirurgical Society for 1905. He says "that they might be more frequently found than they are I have no doubt, for they are not very infrequent as post-mortem curiosities [the reference is to 'large caseous mesenteric glands'] but (during life) in such cases the process is latent and attracts no attention to the belly, though it is far from unimportant, since it may determine a general infection at any moment." He found that 22 per cent. of his necropsies showed no sign of tuberculosis except in the mesenteric glands. He sums up his clinical experience in the words: "With regard to diagnosis it may almost be laid down that hard moveable tumours in the belly of a child which are not fæcal are caseous mesenteric glands."

I shall bring before you some cases which will illustrate the alternative diagnoses arrived at in the clinical aspect of these cases, painting the clinical pictures of an affection which has been known hitherto only pathologically.

1. Tuberculosis of mesenteric glands is found most frequently in adults affecting the lymphatic glands which drain the appendix or the ileo cæcal region. Though I have no intention of quoting specific examples, this class of case must be referred to. In my lectures delivered at the Royal College of Surgeons of England in 1904, it was pointed out that the cæcum was the second place of rest for food in the alimentary canal, the stomach being the first. Moreover, the cæcum is the situation which a hundred- or thousand-fold contains more micro-organisms than any other part of the intestinal tract. These two points, the delay in the passage of the food and the presence of organisms, lead to the presence of lymphoid tissue in the cæcal region as a protective measure, and of its inflammation, appendicitis.[6] Thus there are three reasons why the lymphatic glands in this situation should be those most frequently affected—namely, the delay in the passage of the food material, the presence of organisms, and the presence of inflammation. In operating on the appendix enlarged glands have been frequently found either in the mesenteriolum itself or at the ileo cæcal junction which have turned out to be caseous or partially cretified. It is a most curious fact that suppuration is very uncommon in the mesenteric glands. Even in a septic disease like acute appendicitis with abscess, suppuration is exceedingly rarely seen. The most probable explanation seems to be that the abdominal lymphatic glands which drain the intestinal tract become tolerant and inured to the products of bacterial action, so that they are very rarely excited to the pitch of suppuration.[7]

2. Four of my cases are children, but the first to be quoted will be that of an adult. Such cases must be rare, but his is one of such extraordinary interest that no apology is needed for bringing it before you. The diagnosis made was that of "functional disturbances" after that of renal calculus had been ruled out of court. The man then left the hospital in high dudgeon, taking his own discharge; but his pains compelled him to return in about a fortnight. This case illustrates that a caseous gland in the mesentery can produce apparently functional complaints in the abdominal region and in this particular instance its removal led to a perfect cure. From the point of view of the interpretation of skiagraphs there is a particular interest, as a shadow of a caseous and partially calcareous gland was obtained on a plate in the situation of a possible renal calculus.

CASE 1. *Tuberculous gland of the mesentery; operation; recovery.*—The patient, a man, aged 41 years, was admitted to St. Thomas's Hospital in August, 1904. There was nothing of importance in his family or past history.

[1] A post-graduate lecture delivered at the Children's Hospital, Great Ormond street, on Nov. 16th, 1905.

[2] Reports of the Laboratory, Royal College of Physicians of Edinburgh, 1888.

[3] Brit. Med. Jour., vol. ii., 1893, p. 740.

[4] Transactions of the Medical Society, 1894, vol. xviii., p. 288.

[5] Transactions of the Royal Medical and Chirurgical Society, 1905.

[6] Clinical and Pathological Observations on Acute Abdominal Disease, pp. 33-37, 1904. Constable and Co.

[7] Surgery of the Diseases of the Vermiform Appendix, 1904, pp. 43-44. Constable and Co.

With regard to the present illness he complained of many obscure symptoms; such as that six months previously he had suffered from pain in the urethra during micturition and in both groins afterwards. Three months later he had pain which he located at the tip of his sacrum and which prevented his sitting down. It was relieved by rest. At the date of admission he complained of pain about the right kidney and palpitations. On examination no trace of disease could be found in the chest or abdomen. The urine was alkaline and contained mucus. A skiagraph taken by Mr. A. H. Greg showed a shadow opposite the third lumbar vertebra which might suggest a renal calculus. Nothing else abnormal was found. After a consultation with my colleague, Dr. C. R. Box, it was decided that the complaints were "functional" and that the treatment should be directed to that end. The patient got knowledge of this decision and felt so insulted that he insisted on taking his own discharge. He left the hospital on August 27th. After this the pains continued and compelled the man to seek further advice. Curiously enough, he returned to the same hospital, where, from his point of view, he had been so badly treated. This was felt to be a strong argument in favour of the case being other than purely "functional." He was readmitted on Sept. 9th. Urethral sounds were passed easily, there being neither stricture nor "enlarged prostate." After a further consultation with Dr. Box it was decided to explore the abdomen, although nothing could be found in the way of physical signs to account for his symptoms. On the 16th, under ether, an incision was made over the right rectus muscle, which was split, and the abdomen was opened. The cæcum was delivered and the appendix was found to be very thin and atrophied. It was removed. On further exploration a lump was felt in the mesentery over the third lumbar vertebra, about the situation where the skiagraph had shown a shadow. When examined this was found to be a caseous tuberculous gland. Having packed it round with gauze it was incised, the caseous material was removed, and the walls were curetted. The gland was of about the size of a large walnut. The walls were then invaginated with silk stitches and the cavity left by the removal of the caseous matter was obliterated. The abdominal parietes were sutured with the greatest difficulty, the patient vomiting and tearing out any stitches which had been inserted. The wound healed by first intention, but in view of the poor suturing of the abdominal wall he was kept for three weeks on his back. All his pains had been cured and he was discharged on Oct. 10th. Since leaving the hospital he has put on weight, led an active life, and has had no return of his old complaints. He has developed a ventral hernia through the scar, as was feared. When seen a year after the operation he was very pleased with the result.

The case just related illustrates the co-existence of an atrophic appendix and a large caseous gland in the mesentery of the small intestine. It is possible that they represent indirectly the primary and secondary effects of the same disease. The tuberculous lesion in the intestine may have left no other mark behind it than the atrophic appendix.

3. The next case to be related illustrates active disease of the appendix and many tuberculous glands in the mesentery instead of a passive atrophic appendix and one gland. It may be that this case shows a condition somewhat similar to that in which the patient in the first and older case was in his youth. If this is so the second case is instructive as the glands have subsided since the operation.

CASE 2.—*Tuberculous glands in the mesentery; appendicectomy.*—The patient, a boy, aged 11 years, was admitted to the Hospital for Sick Children, Great Ormond-street, on June 15th, 1905. Three years ago he had an attack of pain in the right iliac region accompanied by vomiting. He went to St. Bartholomew's Hospital, was kept there for 11 days, and was then sent home. Since then he had had several attacks of a similar nature, the last a few weeks previously. Mr. E. Rumley Dawson of Leyton said that the boy had appendicitis and sent him to the hospital. The operation took place on June 20th. The abdomen was opened by the method of displacing the rectus muscle inwards. The cæcum was delivered and the appendix was found to be very long and bound down by its mesentery in such a way that its lumen was obstructed. It was clamped and removed. Numerous small tuberculous glands were found in the mesentery of the small intestine which were not touched. The abdominal wall was sutured with silk and healed by first intention. The boy left the hospital on July 7th. Mr. Dawson writes on Oct. 19th: "Since the operation he has been quite well and I feel sure that his enlarged glands were due to his chronic appendical trouble and have now subsided. ..... All his trouble dated from his first attack of appendicitis and has ceased with the removal of that organ."

4. The third case was that of a boy with whom the diagnosis rested between tuberculous glands in the mesentery and sarcoma. The glandular disease, as it turned out, was very extensive, reaching to the extreme root of the mesentery. The patient has improved in a wonderful way since their removal. At the commencement of his trouble, besides loss of flesh and depreciation of general health, jaundice was the symptom which caused the parents to think that something serious was wrong and made them take the boy to a medical man who discovered the mass in the abdomen. The jaundice may have been due to the action of some toxin on the liver itself or may have been due to the partial obstruction of the bile-duct by enlarged glands. The stools contained bile, showing that such obstruction must have been incomplete. The jaundice cleared up a few days after the operation and was probably toxic in origin.

CASE 3. *Tuberculous glands in the mesentery: operation: recovery.*—The patient, a boy, aged six years, was admitted to the Hospital for Sick Children on August 3rd, 1903. He had had measles when 11 months old, chicken-pox when four years old, and scarlet fever 12 months previously. His father and mother were healthy. With regard to the present illness he had been noticed to have a yellow colour for the last four days, his appetite was bad, he felt drowsy and sick but did not vomit or retch; his bowels were regular. He was a well-nourished and well-developed boy, with slight malar flush and yellowish sclerotics. There was a bright yellow tinge of skin on the front of the chest spreading laterally. No œdema was present. A slight swelling was to be seen over the appendicular region; there was no redness of the skin or dilated venules. On palpation a well-defined somewhat rounded mass could be felt in the region of the cæcum of about the size of a cricket ball; the upper limit reached to the level of the umbilicus, the outer to the mid-Poupart line, the lower to the level of the anterior superior iliac spine, and the inner to the linea alba. The swelling was definitely moveable, much more so inwards. It occupied a part of the umbilical region extending into the right iliac fossa and lumbar regions. There was some tenderness on palpation, and small nodulations were to be felt on its anterior surface. Per rectum, the bowel was ballooned very high up; the finger could just touch the lower pole of the swelling which was rounded, firm, and presented a small nodule. The liver extended one finger's breadth below the costal margin. The spleen was not enlarged. Other systems were normal. The urine contained bile pigment but no albumin or blood. An operation was performed on August 11th. An incision was made over the swelling near the outer border of the rectus, the muscle was drawn inwards, and the peritoneal cavity was opened. The omentum was anterior to the mass and adherent to it. After gradually stripping this off a large rounded mass of the size of a cricket ball was found lying in the mesentery, adherent to the cæcum, the ascending colon, and partly to the transverse colon. During manipulation a weak spot in the wall of the swelling gave way, tuberculous caseous pus escaping. An incision was made into the abscess cavity which had very thick walls, the greater part of which was cut away, the remainder being curetted. The cavity extended upwards and inwards towards the root of the mesentery and contained much tuberculous débris in an advanced stage of caseation. The cavity was closed with two rows of silk sutures after thorough irrigation with saline solution. The abdominal wound was closed in layers. The patient was put to bed with a very good pulse and colour, having stood the operation well. The wound healed by first intention. The jaundice, probably toxic in origin, disappeared in a few days. On Sept. 9th he was transferred to the convalescent home, Cromwell House, Highgate, where he improved rapidly. He has been seen several times since then and has grown strong, put on flesh, and maintained the improvement in every way. It is now about two years and three months since the operation. On Nov. 13th, 1905, he was shown to the Medical Society of London, the picture of health with a perfectly sound scar.

5. The fourth case is of particular interest on account of the occurrence of colicky pains. These and the looseness of

the bowels suggest that there was, or had recently been, some active tuberculous enteritis. In most of these cases the intestinal lesion had disappeared by the time that the glands were palpable on abdominal examination. Just as is the case with the tonsil and tuberculous glands in the neck there is no sign of tuberculous disease in the former. As compared with the other cases the disease was far more extensive in this boy than in any of the others.

CASE 4. *Tuberculous glands in the upper part of the mesentery; operation; recovery.*—The patient, a boy, aged 12 years, was admitted to the Hospital for Sick Children in August, 1904. For the previous eight or nine months he had been anæmic and losing flesh, though eating plenty. About three months previously he began to have sharp attacks of pain in the middle of the lower part of the abdomen which lasted usually less than half an hour, coming and going away quite quickly. They were not accompanied by vomiting or sweating. There was no micturition trouble; the bowels were inclined to be loose. For some months he had very occasionally had a few streaks of blood in his motions. Previously to this illness his health was very good. He had had measles, whooping-cough, and chicken-pox. There was no tubercle in his family history. On examination, a moveable tumour of the size of an adult kidney was present in the left loin and epigastrium. There was no resonance in front of it. The urine was quite normal. The diagnosis of tuberculous glands in the mesentery was made. The abdomen was opened through the upper part of the left rectus and the peritoneum incised. Caseous tuberculous glands in the mesentery formed a large tumour which extended into the left hypochondrium and loin. The peritoneal cavity was packed off and the mesentery incised on both sides; the glands were shelled out and curetted. The abscesses had burrowed extensively. Gauze drains were inserted in each side of the mesentery and the abdomen was partially closed. The wound healed excellently and the boy was transferred in December to the convalescent home at Cromwell House, Highgate, where he improved rapidly. He has been seen several times since and has gained much weight. When shown to the Medical Society of London on Nov. 13th, 1905, he was much improved but still had occasional and unexplained attacks of diarrhœa.

6. The next case is quoted certainly not to illustrate the success of operation or its failure but to point out the end of these cases of caseating tuberculous glands in the mesentery if not treated surgically. It points to what might have been the termination of the other cases if they had not been operated on.

CASE 5. *Tuberculous glands in the upper part of the mesentery; operation; death later from miliary tuberculosis.*—The patient, a boy, aged 12 years, was admitted to the Hospital for Sick Children in July, 1903. He had been ailing for some months but had been ill the last week with vomiting and looseness of the bowels. The stools contained much mucus but no blood. His abdomen was rather distended, rigid, and tender, and presented a tumour beneath the upper part of the left rectus muscle. The possibility of an intussusception was discussed but thought not to be present. The child was watched for a few days without any improvement taking place. The possibility of meningitis was considered but as he was obviously going downhill it was decided to explore the abdomen. The abdomen was opened through the upper part of the left rectus, the tumour being isolated with gauze. The mesentery was then incised and the glands were shelled out and curetted. The mesentery was sewn up and the abdomen was closed without drainage. The patient improved a little but after a few days the meningitic symptoms became more pronounced. In a few weeks he died and the necropsy revealed general miliary tuberculosis.

This last case illustrated the general infection of the body with tubercle from the mesenteric glands. Dr. Branson says: "Excepting only the bronchial glands, caseation of the mesenteric glands is the most frequent promoter of tuberculous meningitis." The diagnosis made in this case is also of interest—subacute intussusception. The fatal result was assured before operation, but, arguing in the light of the previously recorded cases, it is obvious that had the child been submitted to the surgeon previously, he would not or, more modestly, need not have died.

Dr. Branson, in the paper already referred to, says "the removal of these softened glands from the mesentery would remove a standing menace to life and I submit this alternative to the judgment of practical surgeons." The cases mentioned in this lecture have answered Dr. Branson that these glands can be removed and the operation followed by cure. A mere laparotomy, though frequently taught to be useful in these cases, is a half measure and is not followed by success.

Finally, I hope the narration of the successes, failures, and natural results contained in this lecture will have conveyed to you the fact that there is a stage in cases of abdominal and mesenteric tuberculosis which is amenable to surgical treatment and to no other. If this moment is allowed to pass by then the patients will surely die.

ADDENDUM.

A further and most important question arises from this lecture—namely, the relation of tuberculous peritonitis to the cases of caseous mesenteric glands which are suitable for operation. In the first place, tuberculous peritonitis is recognised in four forms: (1) a dry form often accompanied with the formation of adhesions; (2) a wet form accompanied by ascites; (3) an ulcerative form in which caseous foci are found amongst adherent coils of intestine; and (4) the suppurative, which is simply one of the previously mentioned varieties with the addition of pyogenic organisms, so that it need not be further considered. Tuberculous mesenteric glands are always found in association with tuberculous peritonitis in all its forms. But tuberculous mesenteric glands are found without any tuberculous peritonitis. In the former case they are distributed, perhaps sparsely, over a large area. They do not form the large moveable masses such as were described in the third, fourth, and fifth cases in the lecture. The tuberculous glands which form these masses are the result of tuberculous *enteritis*, not *peritonitis*. The enteritis was illustrated in Cases 4 and 5 who had diarrhœa with the passage of blood and mucus. The third case gave no such history. And, indeed, it is not necessary. Dr. Sidney H. C. Martin[*] fed some guinea-pigs with tuberculous sputum and found that they had tuberculous infection of the mesenteric glands without any intestinal lesion. This may have occurred in Case 3. The moveable palpable masses of caseous mesenteric glands are probably produced in these ways. The palpable tumours of tuberculous peritonitis are formed by adherent coils of intestine or omentum which may contain a caseous focus or not. These tumours are only exceptionally moveable. The mobility or fixity of an abdominal tumour becomes a matter of the greatest importance. An example of this observation was made on a little girl who had suffered from tuberculous peritonitis for some time. She had a tumour in the lower and left side of the abdomen. It was immoveable. In spite of the raised temperature, &c., it was advised that nothing should be done. The result justified the opinion, as in a short time the temperature became normal and the child began putting on flesh. It is most advisable that the distinction between these two kinds of tuberculous tumours should be made, as the prognosis and treatment are very different. If a caseous focus of tuberculous peritonitis is opened, as it must be occasionally, the results are often extremely unsatisfactory, the patient often ending his life in pain and misery with a fæcal fistula, whilst if suitable cases of tuberculosis of the mesenteric glands are selected for operation gratifying results may be expected.

Harley-street, W.

[*] Allbutt's System of Medicine, vol. iii., p. 660.

CARCINOMA OF THE TESTICLE.[1]

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MALIGNANT disease of the testicle has generally been described by pathologists as occurring either as a sarcoma of what is often a somewhat peculiar type or as a glandular spheroidal-celled carcinoma which is usually referred to as being of the "encephaloid" type, and it is usually represented that of these two forms of malignant disease sarcoma is that which much the more frequently affects this gland.

Columnar-celled carcinoma of the testicle would seem to be an extremely rare form of malignant disease if one judges

[1] A paper read at a meeting of the Pathological Society of London on Dec. 5th, 1905.

by general pathological literature. On searching the Transactions of the Pathological Society of London I can find but three cases which have been described under this name. There is the case of Sir James Paget's which for many years was referred to in text-books as a typical example of enchondroma until its true nature was demonstrated by Kanthack and Pigg;[2] there is a second case of carcinoma of the testicle recorded by Kanthack and Pigg;[3] and a third case has been recorded by Poland.[4] And a review of other literature relating to malignant disease shows very clearly that pathologists, with but few exceptions, have not recognised columnar-celled carcinoma amongst the forms of disease to which the testicle is liable. On the other hand, I think there can be no doubt but that in the past there has been widely spread error in the nomenclature of malignant disease of the testicle and that, as I have endeavoured to prove in a paper which was published in the Archives of the Middlesex Hospital,[5] a very considerable number of cases of columnar-celled carcinoma of the testicle have been recorded under other names—as cases of sarcoma of the testicle, as adeno-sarcoma, chondro-sarcoma, cystic myxo-sarcoma, and so on; and I believe that the truth of my contention will be readily recognised by anyone who will carefully consider the histories and histological details of the long series of cases which have been recorded as cases of sarcoma of the testicle and as belonging to one or other of the varieties of this form of disease which are mentioned above. It is evident that in a large proportion of such cases writers have described what is essentially a malignant epithelial disease of the columnar-celled type, but that by attaching undue importance to peculiarities which are frequently met with in the mesoblastic connective-tissue stroma of columnar-celled carcinoma of the testicle, and influenced probably by considerations founded on the fact that many of these cases have occurred at comparatively early ages, they have been led to describe the new growth as a sarcoma. And it is the more surprising that the essentially epithelial nature of the new growth should have been overlooked in so many cases when one remembers how frequently it has been remarked that, apart from the sometimes peculiar age incidence, the clinical course of malignant disease of the testicle is usually suggestive of carcinoma rather than of sarcoma.

Schlagenhaufer[6] has attempted to show that some, at any rate, of the cases which I would include under the description of columnar-celled carcinoma belong really to yet another class of new growth. Because of an alleged resemblance of the epithelial cells of the testicle growth to the specific cells of a chorion-carcinoma and for other reasons which I will refer to later, Schlagenhaufer has differentiated a group of "malignant teratomata" of the testicle. It would appear, however, that the validity of the deductions which Schlagenhaufer draws from his observations is open to question and I am not prepared at present to accept his conclusions as to the fact of the occurrence of malignant teratomata of this organ. And in any case I would claim that there is ample evidence that columnar-celled carcinoma is the most frequently occurring of the various forms of malignant disease which affect the testicle, and that sarcoma is, as one might expect in a gland of this sort, much less common than the malignant epithelial new growth. The relative frequency of occurrence of the other kind of carcinoma of the testicle which has been described by some writers, the glandular spheroidal-celled variety, is another matter, and one as to which we have but little information available to guide us; but I think that it may be said safely that this type of carcinoma is of distinctly rare occurrence in the testicle as compared with the relative frequency of the columnar-celled variety.

Before considering some points of special interest in connexion with columnar-celled carcinoma of the testicle generally, it will be convenient to describe a case which has recently occurred at the Middlesex Hospital, for permission to publish which I am indebted to the kindness of Mr. J. Bland-Sutton, under whose care the patient was, and who has himself contributed much to our knowledge of the pathology of tumours of the testicle. The case is the third of the kind which has come under my observation at the Middlesex Hospital, the other two having already been published with full histological details in the Hospital Archives.

The patient, aged 58 years, a carman by occupation and married, was admitted in April of the present year. So far as could be ascertained there was nothing of special importance in his family history and the man stated that he had not suffered from any previous illness since his childhood. Some eight months before his admission into hospital the patient had noticed an enlargement of the contents of his scrotum and at about the same time became conscious of slight but almost continuous pain in the part. The swelling had increased in size gradually but there had been no aggravation of the pain. Later a hydrocele was diagnosed and this was tapped a week before the patient came to hospital. On admission the patient looked a healthy man and did not complain of any pain at the time. The right side of the scrotum was occupied by a tumour the character of which was masked to some extent by a hydrocele. The tumour mass, which included the testicle, was removed and the cord, which appeared to be healthy, was divided as high up as possible. The patient left hospital 19 days after the operation with the wound soundly healed but shortly afterwards clear clinical symptoms of the presence of malignant disease within the abdomen developed. The later history of the case is not known.

Appearance of the tumour mass removed by operation.—The mass removed is of oval shape, measuring 11 centimetres in the longest diameter, 8 centimetres in the antero-posterior diameter, and 8 centimetres from side to side. It presents two well-differentiated portions, a lower testicular portion which was still almost completely inclosed within a thickened and distended tunica albuginea, and an upper portion, consisting almost entirely of new growth which had apparently grown out from the posterior portion of the testicular part of the mass. Traces of the epididymis can be seen towards the upper part of the tumour mass but for the most part this structure has been destroyed and lost in the new growth. The greater part of the lower portion of the specimen appears as the cavity of a large cyst which is bounded by the tunica albuginea and which at the time of operation contained a gummy colloid material. The cyst presents on its inner wall two masses of tissue, which represent the remains of the testicle. This portion of the tumour mass, which is bounded by the tunica albuginea and which contains the remains of the testicle, was free from any adhesions to the opposite surface of the tunica vaginalis; the greater part of its upper surface, covered by a reflected fold of the tunica vaginalis, is separated by a distinct space from the mass of new growth above it. The new growth, which has grown out from the posterior surface of the mediastinum testis, is of whitish colour and when fresh was of fairly firm consistence and showed a few small haemorrhagic areas; a few minute cysts are scattered over the surface of a section of it.

The histological examination.—The parts which require special description are (1) the remains of testicular substance found within the tunica albuginea; and (2) the new growth.

Histology of the remains of the testicle.—The portions examined showed no signs of invasion by new growth. The interstitial connective tissue of the gland is much increased in bulk and in places shows signs of a coarse mucoid change. Some of the seminal tubules are of almost normal appearance except that there is no indication of the development of spermatozoa. In other tubules the lumen is distinctly narrowed and sometimes filled with a plug of colloid material; and in other tubules, again, the lumen is obliterated, so that they now appear as solid columns of cells. The tubules generally present the following appearances on cross section. Most externally there is a single layer of cubical or occasionally distinctly columnar cells, which correspond with the lining epithelial cells or spermatogonia of the normally active seminal tubule; these cells, when of the columnar type, have a distinctly elongated nucleus. Internally to this single layer of cells there are succeeding layers of polyhedral cells which have a well-defined outline, spherical nuclei, and cell protoplasm which stains very lightly. These latter cells, corresponding with the spermatogenic cells or spermatocysts of the normally active tubule, either fill in the section of the tubule or limit a small central lumen. No

[2] Malignant Enchondroma of the Testis, Transactions of the Pathological Society of London, vol. xlviii., 1897.
[3] A Case of Carcinoma of the Testis in a Young Man, ibid., vol. xlviii., 1897.
[4] Columnar-celled Carcinoma of Testis, ibid., vol. xlviii., 1897.
[5] Chondrifying Carcinoma: The Archives of the Middlesex Hospital, vol. v., 1905.
[6] Ueber das Vorkommen Chorionepithiom- und traubenmolenartiger Wucherungen in Teratomen: Wiener Klinische Wochenschrift, No. 22, p. 571, and No. 23, p. 604, 1902.

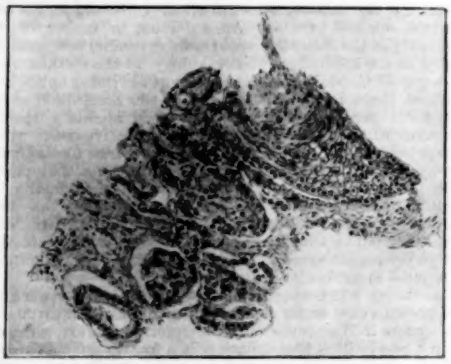
cells corresponding with the small innermost cells, the spermatids, of the normal tubules were seen in any of the sections examined nor could any traces of the interstitial epithelioid cells be seen. In addition to seminal tubules a number of vasa recta are present lined by a single layer of cubical epithelium and portions of efferent ducts of the rete testis lined by columnar cells can also be seen. The lumen of these efferent ducts is sometimes blocked by a plug of colloid material, sometimes by a mass of degenerated cells.

The gland is that of a man well advanced in life and this is probably the explanation of the largely increased amount of interstitial connective tissue. But special interest attaches to the appearance of the epithelium, inasmuch as the obliteration of the canal of the epididymis by new growth has had the effect of reducing the remnant of the testicle to the state of a ductless gland and so placing the epithelium under conditions closely similar to those under which the epithelium in the closed tubules of the new growth is placed.

Histology of the new growth.—The histology of the new growth has to be considered with reference to the specific epithelial cells and the interstitial connective tissue of the stroma. The connective tissue in this particular case calls for but little notice; it is of quite ordinary character, closely set and richly cellular in some places, of looser texture in others. Indications of mucoid change are to be seen, but there are no extensive tracts of myxomatous tissue nor any development of hyaline cartilage such as are often seen in columnar-celled carcinoma of the testicle.

The specific epithelial cells of the new growth may be described under three headings according to their arrangement and certain variations in their morphology: (*a*) In a few places one sees slender columns of spheroidal cells which represent out growing buds of epithelium in which tubulation, with consequent assumption of the columnar type by the cells, has not yet occurred. (*b*) There are numerous tubules and spaces lined by a single layer of either cubical or columnar epithelium and frequently containing colloid material. In places the tubules show a redundancy of epithelium and at least two layers of lining cells can be seen. (*c*) There are solid columns or tracts of polyhedral cells which closely resemble the closed tubules which have been referred to in the description of the testicle remnant. These columns of polyhedral cells present certain variations. In the first place, one finds columns which on cross section present externally a single layer of cubical or columnar cells, whilst the rest of the section is filled in with a regularly tessellated mass of polyhedral cells closely resembling the spermatogenic cells of the normal seminal tubule. In other cases the polyhedral cells towards the centre of the column have assumed a "whorled" grouping which at once recalls a frequent arrangement of the innermost cells in a transverse section of an epithelial cell tract in squamous-celled carcinoma. In a still later development of this stage, however, the specific difference between the cells of the two types of carcinoma is well marked; instead of the keratinoid change which occurs in the innermost cells of the squamous carcinoma one finds here a very definite colloid degeneration. Intermediate between the typically tubular arrangement of columnar or cubical cells and the solid columns of polyhedral cells one notices an arrangement which again duplicates appearances seen in sections of the testicle. There is first a single external layer of either cubical or columnar cells and then several succeeding layers of polyhedral cells, the innermost of which limit a central lumen which may be quite free or may contain a loosely fitting plug of colloid material. In places the cells have undergone complete colloid degeneration, with the result that on section one gets the appearance of microscopic cysts. Another stage in the evolution of the solid columns of polyhedral cells which was described by Kanthack and Strangeways Pigg in their case of columnar-celled carcinoma of the testicle, and which I have seen in other cases, in which the innermost cells of the column when observed in cross section have assumed the appearance of concentric lamellæ of fibroid material—again recalling an appearance common in squamous-celled carcinoma—was not observed in any of the sections examined in this case. My own observations of the varying morphology and arrangements of the specific epithelial cells of columnar-celled carcinoma of the testicle coincide in all essential details with those recorded by Kanthack and Strangeways Pigg in their case; and with those authors I have no doubt but that the solid columns of polyhedral cells are a natural and direct result of the proliferation of the columnar cells of the simple tubular elements of the new growth.

Certain points in connexion with the seat of origin of columnar-celled carcinoma of the testicle have next to be considered. In the case now recorded, and in others of a similar character, there can be but little doubt but that the new growth has originated from the epithelial ducts in the



Section through portion of new growth, showing cross section of solid column of polyhedral cells with "whorled" arrangement of the innermost cells and tubules lined with cubical epithelium.

mediastinum testis. It has been pointed out that the arrangement and morphology of the epithelium of the new growth resemble very closely that of the epithelium of the seminal tubules, the vasa recta, and the efferent ducts of the rete testis. And as the transition of the columnar or cubical epithelium of the simple tubules of the new growth into the polyhedral cells of the columns, whether solid or presenting a central lumen, can be traced with some certainty, it is permissible to argue that the cells of the single lining layer of the normal vasa recta and the efferent ducts of the rete testis are genetically and essentially the same as those of the epithelium of the seminal tubules. But the exact genetic relationship of the epithelium of the efferent ducts of the rete testis to the epithelium of the duct of the epididymis in one direction and to the spermatogenic epithelium of the seminal tubules in the other has not yet been worked out from the embryological point of view.

The lining cells of the Wolffian duct are derived, according to Kollmann, from the epiblast, a fold of which by lateral invagination becomes imbedded in the intermediate cell mass. From the lining epithelium of the Wolffian duct is derived the epithelium of the vas deferens and of the duct of the epididymis. The epithelium of the seminal tubules, on the other hand, is believed by the majority of embryologists to be derived from the germinal "epithelium" which is at one time a part of the mesoblastic endothelial lining of the pleuro-peritoneal cleft, and so is rather widely differentiated from the epithelium of the Wolffian duct. Now, as I have pointed out above, one has strong reason for believing that the epithelium of the vasa recta and tubes of the rete testis is very closely allied with the epithelium of the seminal tubules, and consequently in accordance with the present system of nomenclature of malignant disease the growth which I have just described, although histologically an obvious epithelial growth, apparently should be classified amongst the sarcomata because of the presumably mesoblastic origin of the cells from which it has grown. But, on the other hand, it must be remembered that the question of the development of the epithelium of the seminal tubules has not yet been finally settled and that its origin from the germinal "epithelium," whilst generally accepted, has not, I believe, been actually demonstrated yet, nor is it accepted by all embryologists. And, moreover, the conception of the development of a gland and its duct by the coalescence of a tube of epithelial origin with secretory tubules of mesoblastic origin would seem to involve an anomaly in development which is probably comparable only with the also debateable development of the urinary secreting apparatus. For the teaching of embryologists is that the continuity of the urinary tubule as a whole is established by a coalescence of the tube of cells which line

the glomerulus and first convoluted portion of the tubule, and which are derived from this same germinal "epithelium" (or mesothelium), with an ingrowing tube of cells derived from the Wolffian duct. In the case of the seminal tubules the alternative explanation would be that the Wolffian epithelium penetrates further into the substance of the developing testicle than is generally believed to be the case and that the germinal "epithelium" is represented by the interstitial epithelioid cells which lie outside the seminal tubules. An argument in favour of this possibility is the fact that apparently epithelial new growths arising in the epithelium of the kidney, in the epithelium of the organ of Giraldès (as to the origin of the lining epithelium of which there is no dispute) and in the epithelium of the rete testis present what may be termed almost a specific characteristic in the liability of the connective tissue which is in proximity to the epithelial cells to undergo development into hyaline cartilage. And altogether I think that one is fully justified, in spite of the embryological difficulty, in terming these growths carcinomata, inasmuch as they resemble in all essential particulars carcinomata arising elsewhere, and since they have origin in what both anatomists and physiologists agree in treating as epithelium in spite of its reputed mesoblastic source.

The theory which implies a close relationship between the new growths now under consideration and chorion-carcinoma as it occurs in the uterus must be referred to next, although it must be admitted that criticism in a matter of this kind is difficult when one has not even seen the specimens on which the opinion has been founded. But through the kindness of Teacher of Glasgow, whose valuable work in connexion with the pathology of chorion-carcinoma is well known, I have had the opportunity of comparing sections of two typical cases of this kind of new growth as it occurs in the uterus with my own sections of carcinoma of the testicle. And it has not been possible for me to find any such resemblance between the polyhedral cells which occur in the testicle growth and the polyhedral cells of the chorion-carcinoma as would lead one to suspect that they stood in any specific relationship to each other. Seen in the cross section of a solid cell column the polyhedral cells of the testicle growth present a strong contrast to the specific cells of the chorion-carcinoma. The former cells have a very sharply defined outline, the body of the cell stains very lightly or not at all, and the nuclei are small in relation to the size of the cell, are of fairly regularly spherical shape, and have extremely well-defined outlines; in the chorion-carcinoma, on the contrary, the edge of the cell is not particularly sharply defined, the cell body stains more deeply than in the others, and the large nuclei of irregular and varying shape contrast very strongly with those of the other class of cell. Some stress, again, has been laid on the relation of cells of the chorion-carcinoma to the large blood spaces which are a characteristic of this kind of new growth. But here, again, any resemblance that there may be is not at all convincing: in carcinoma of the testicle largish hæmorrhagic areas appear to be quite common and are probably the result of mucoid degeneration of the walls of the blood vessels, but when one sees groups of polyhedral cells standing out in the hæmorrhagic area it is easy to recognise these cells as the representatives of the polyhedral cells which are descended from the columnar epithelium and which have in their origin nothing obviously in common with the cell of the chorion-carcinoma. Under the last-mentioned conditions, however, dissimilarity between the two types of cells is perhaps a little less strongly marked, and owing to degenerative changes the cell as a whole may appear swollen and of ill-defined outline, whilst in some cells a portion of the cell body having already disappeared the nucleus may appear larger than usual relatively to the rest of the cell and it may itself be swollen and have lost its naturally well-defined and regular outline. In fact, the closest resemblance to chorion-carcinoma which I have seen in a carcinoma of the testicle was in a case in which the primary growth had been the seat of extensive hæmorrhage and in which the tissue had undergone extreme degeneration. But in this case the secondary deposits of new growth in the spleen, lungs, and mediastinal glands showed the structure of a typical columnar-celled carcinoma with the addition of hyaline cartilage in one of the nodules in the lung. In the description given of one of Schlagenhaufer's cases which is recorded as a typical one and in which the primary testicle growth is described as a teratoma I cannot find any details which might not be explained by what may be seen in what I would regard as a columnar-celled carcinoma of this organ, except, perhaps, that some tissue is described as resembling embryonic lung. Given a carcinoma of the testicle with columnar epithelium and chondrification of the natural mesoblastic stroma, one has only to fall into the error of taking for epidermal cells the masses of polyhedral cells which have assumed the "whorled" appearance which has been referred to previously in order to have a complete, but illusive, picture of a teratoma with cells which might be held to represent all three fœtal layers. In short, more evidence is required before one can accept the reality of the intrinsically somewhat improbable malignant teratoma of the testicle.

The last matter which need be referred to now in connexion with carcinoma of the testicle is the occurrence of chondrification of the connective tissue stroma. If we put on one side some cases of new growth of rather doubtful nature commencing in the salivary glands and in which hyaline cartilage not infrequently occurs, it will be found that for practical purposes when considering the cause of chondrification in malignant epithelial new growths we are limited to a group of cases of carcinoma originating in the renal epithelium, in the epithelium of the organ of Giraldès, and in the epithelium of the testicle. Chondrification of the stroma of a carcinoma arising in other situations does, however, occur, as in a probably unique case lately in the Middlesex Hospital in which extensive chondrification of the stroma of a columnar-celled carcinoma occurred in a mass of new growth from the inguinal glands of a woman in whom the primary growth commenced in the lowest three inches of the anterior wall of the rectum; but such cases appear to be of extreme rarity and it is not easy to explain them. In the case of the chondrifying carcinoma of the testicle I think, however, that at any rate some explanation as to the cause of the chondrification can be afforded.

Regarding the process by which hyaline cartilage is laid down in the connective tissue stroma of a carcinoma of the testicle, one observes first that its development is not a peculiarity of the malignant form of epithelial new growth, since the change occurs with at least equal frequency in simple adenoma of the gland. And, in the second place, it is obvious that the development of the cartilage is not due to any peculiarity of the connective tissue of the testicle, since in malignant disease the chondrification occurs in secondary deposits in the lungs and elsewhere. And so the only possible conclusion is that there must be some intimate connexion between the development of the cartilage and the specific epithelial cells in the neighbourhood of which the chondrification occurs. If one studies the development of this hyaline cartilage one finds that the connective tissue first assumes the appearance of a delicate myxomatous tissue and that from this myxomatous tissue the cartilage is developed in apparently exactly the same way as it is developed from myxomatous fœtal mesoblastic tissue. If it should happen in the case of a new growth that the delicate myxomatous tissue does not complete its development into hyaline cartilage it probably undergoes the coarse mucoid degeneration which is so common in these cases. And I think that it is a fair inference that this assumption of activity by indifferent mesoblastic tissue is caused by a stimulus of a bio-chemical nature supplied by the secretory activity of the epithelial cells. A nodule of new growth of this kind may be compared from the physiological point of view with a ductless gland, and the products of its secretive activity must necessarily find their way into the neighbouring connective tissue in a concentrated form. It is tolerably certain that much of the earlier tissue differentiation which occurs in the developing embryo must be the result of vital processes called into activity by stimuli afforded by the chemical products of cell life; that, for example, the whole process of development must be initiated by a specific stimulus depending on some substance contained in that part of the spermatozoon which acts as the male pronucleus and carries with it to the female cell chemical products of the vital activity of the cells of the epithelium of the testicle. And it may be claimed that the development of hyaline cartilage in the stroma of the carcinoma is but a manifestation of the specific properties of the chemical products of the secretory activity of this kind of epithelium, of their special power to stimulate developmental activity.

The importance of bio-chemical cell products in stimulating and regulating the mechanism of development and of life generally has during recent times become strongly evident in various directions, and the probability that carcinoma cells

which are descended from the epithelium of the testicle retain, even when living as parasites in foreign tissues, some of the specific secretory properties of their prototypes is not without interest to those of us who have been unable to accept the various theories which have been prevalent at times as to the causation of carcinoma by parasites from without and who have contended that it is only by research into the laws which regulate the development and growth of the normal tissues that we can hope to solve the all-important question of the method of causation of carcinoma.

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HUNTINGTON'S CHOREA AND DEMENTIA.

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THE interesting case of Huntington's chorea with dementia recorded in THE LANCET of Oct. 28th, p. 1252, and the annotation thereon (p. 1274) as to what extent the disease occurs in asylums for the insane prompt me to add another case of especial interest, insomuch as the clinical symptoms during life afforded the possibility of a diagnosis of chronic general paralysis with mental symptoms, a diagnosis which the results of the post-mortem examination, recorded by Dr. G. E. Peachell in his case, appeared also to suggest.

Having some considerable experience I venture to affirm that of all the gross pathological lesions found in cases of general paralysis "granulation" of the ependyma in the lateral ventricles, and particularly in the calamus of the fourth ventricle, is the most constant, and possibly also the most pathognomonic, of the naked-eye appearances—chronic and senile forms of insanity being of course excepted. The thickening of the membranes, the opaque gelatinous appearance of the pia arachnoid, the wasting of the frontal convolutions and the filling up of the inter-gyral space with fluid, as recorded by Dr. Peachell, further demonstrate the affinity which (some cases at any rate of) Huntington's chorea bears in its pathological findings to general paralysis.

The case here related is that of a married woman, aged 53 years. She had been in the asylum nearly seven years before death occurred. The disease was stated to have commenced shortly before admission, at the age of about 46 years, the mental condition being attributed by the friends to that vague but withal stormy crisis entitled the "change of life." Her previous history relates that she had been married 12 years, had borne two children who died young, that she had no miscarriages, and never had a seizure. Members of her own family stated that she was never "strong-minded" and that she had married "a man who always looked upon her as a poor thing, and gave her much worry." Upon admission she had a somewhat dull and heavy look, but she was restless and fidgety from large incoördinate choreiform non-rhythmic movements, which caused her to have some tendency to a "rolling gait." The movements particularly affected the head and face, but upon admission there appeared to be some facial paresis, more marked about the right side of the mouth. The reflexes were brisk, and the pupils were inactive to light (right pupil 3 millimetres, left 2½ millimetres) and reacting to accommodation (the right to 2½ millimetres and the left to 2 millimetres). The heart sounds were rapid and somewhat indistinct. Mentally, apart from delusions of a sexual character and that she imagined herself to be pregnant (accusing herself of infidelity), there was dementia—loss of memory being a prominent feature. For several years the weakmindedness increased and she gradually became more childish, her speech became more difficult, especially in pronouncing gutturals, but apparently there was little or no trouble with labials. The speech difficulty was greater when notice was taken of her. The last two years witnessed further general deterioration; the pupils at this time were unequal and inactive to light: right 4½ millimetres, left 4 millimetres; when accommodating: right 3 millimetres, left 2½ millimetres; and when accommodating strongly: right 2½ millimetres, left 2 millimetres. Later the choreic movements became very marked in the hands; she could not dress herself, and the left arm, owing to paresis, was weaker than the right. Both knee-jerks were increased but the left preponderated. At this stage both pupils measured one millimetre and were still inactive to light. She became very fidgety, especially when spoken to; her appetite became ravenous, her habits became defective, and she used to grind her teeth. She destroyed her clothing and required much attention. Gradually she became bedridden and very emaciated, and she died just under seven years after admission.

The family history is interesting. Her father, country born and a brick-burner by trade, was never very bright, being always fearful that he would have to go into the workhouse and he suffered from the same condition as the patient. Shortly after he reached the age of 50 years, having lost his wife, he went "a bit wrong in his mind" and had twitchings like his daughter had. He eventually became "quite silly" but was never in any asylum. He died from the "decay of nature" at the age of 58 years. The patient's mother had a congenital club-foot, being deformed from birth, but she was active and got about with the help of a special boot. She was described as being quite bright mentally and as being a great contrast to her husband. She died at the age of 54 years after a week's illness from what was described as an "apoplectic fit." Nothing is definitely known of the grandparents beyond the fact that they were respectable country villagers in Berkshire. The grandfather was a master brick-burner, for whom the patient's father himself worked. No history of any illness in this connexion nor of the cause of death is obtainable. As to the collaterals, there were seven members of the patient's family, three brothers and four sisters, and none of them are described as being particularly bright. One sister died in a fit in the village home and was "shaky" like the patient. Two brothers died from pulmonary tuberculosis and it is recorded that the mental state of one of them was characterised by impulsive and irritable outbursts.

The patient died from subdural hæmorrhage. The brain weighed only 1025 grammes (the average normal female brain weighs 1270 grammes). The right hemisphere weighed 415 grammes and the left 390 grammes. The dura mater was thickened on the left side and there was a great excess of red-stained fluid beneath it. There was a membrane over the vortex on both sides, thicker on the left than the right, and on this side also were about four drachms of recent blood clot which was probably only a few days old. The hæmorrhage extended over the whole of the base of the brain. It was membranous and probably of some duration in the anterior fossa where it existed in three films. It was also in films on the tentorium. The pia mater was opaque and thickened over the fronto-parietal region, stripping readily, and there was a great excess of subarachnoid fluid—a consequence of the loss of cerebral substance, probably through neuronic degeneration. The convolutions were extremely wasted throughout.[1] The actual nature of this wasting is imperfectly understood; the neuronic degeneration probably interferes with the nutritive and excretory systems of the cortex; an increase of glia tissue takes place which contracts and cerebro-spinal fluid or blood replaces the wasted cortex. The lateral ventricles were dilated and there were granulations of the ependyma, as also of the lateral sacs of the fourth ventricle. The vessels were apparently natural. The layers of the cortex in the pre-frontal region were carefully measured by Dr. J. S. Bolton (late assistant pathologist of the London Asylums and now at Rainhill) at the apex, side, bottom and flat part of the convolutions, and he found extreme narrowing of the pyramidal layer with considerable narrowing of the other layers, being identical in actual measurement with that of a full term fœtus and a six weeks' child.

The main interest of this case lies in the fact that it is not only a typical one of Huntington's chorea but it has also been most carefully worked out in Dr. F. W. Mott's laboratory and recorded by Dr. Bolton in his paper entitled "The Histological Basis of Amentia and Dementia," in Vol. II. of the *Archives of Neurology*—a paper which is itself evidence of colossal industry and is probably the first attempt through pathology to correlate mental states with the different areas of the cortical surface. I am of opinion that the classification of brain weights as to convolutional complexity and the comparative estimates of the cortical layers in actual measurements as worked out by Dr. Bolton and Dr. G. A. Watson are of the highest value, possibly more so than microscopical descriptions of the cells and their nuclei. I should like to invite

[1] See photograph, Archives of Neurology, vol. ii., plate iii., fig. 10, p. 618.

the special attention of those interested in asylum work to the excellent and elaborate thesis above referred to. It is, I think, an unusual and a valuable example of the combination of clinical and pathological investigations.

In the case under consideration the small weight and under-development of the brain are noteworthy and it would have been interesting to have had these referred to, as also the relative thickness of the cortical layers in the case previously described. The cortical measurements given by Dr. Bolton show a wasting of nearly 27 per cent., mostly in the pyramidal layer[2] which contains the highest association neurons and upon the integrity of which the most advanced needs of the individual depend—those needs based upon reason and intelligence, those which involve attention, comparison, and judgment, and which result from the interpretation, collection, and elaboration of incoming sensations arriving on the "platform" of the granular layer. The least wasting occurs in the polymorphic layer which Dr. Watson has shown to be related to the lower functions of the organic life, such as seeking for shelter, hunting for food, or those controlling the lower instincts, and it is only diminished in pronounced mental disease when the habits become degraded. The pyramidal layer has been shown by Dr. Bolton[3] to be directly related to the mental capacity and power of the individual. It is under-developed in amentia, is well represented in persons of high mental grade, and is, in the latter class, wasted proportionately to the degree of dementia caused by a degeneration of the neuronic elements in this layer.

As to Huntington's chorea, its pathology is hitherto not definitely ascertained. Some observers have ascribed the symptoms to vascular changes leading to hyperplasia of glia tissue, the neurons being secondarily affected. Others uphold a primary degeneration of the nerve elements, interstitial changes being secondary and due to the chronicity of the process. Its affinity with general paralysis may suggest that it is itself a pre-senile condition affecting the higher neurons, the pyramidal and Betz's cells, through a vicious organisation—some genetic deficiency of power to survive, a "hereditary malformation" becoming a *locus resistentiæ minoris*. We know that alcohol may select to make its ravages evident in some persons by cirrhotic changes, in some also by neuropathic changes, and in others by the psychopathies. In some persons decay is indicated by vascular changes, in others it is indicated primarily in the nervous system. We appreciate that in every tissue there is a certain inherent tendency to evolve towards a higher state of development or towards perfectibility in regard to the environment, but this perfectibility is accompanied—as a set off—by diminished durability. The more highly developed the neuron the more deficient it is in durability; the less highly developed the greater the durability. We are acquainted with cases of juvenile general paralysis in which slight stress causes little injury and they linger on for long periods, and we may contrast with these cases occurring in highly developed and capable persons where great and severe stress has led to rapid deterioration and degeneration when once this "breaking strain" has been reached. What determines the tendencies to dissolution we do not know, for hitherto we have but little knowledge of the recessive or dominant characteristics which determine hereditary tendencies in the different structures of the body. We may further instance the parellelism of general paralysis and Huntington's chorea; both are progressive and fatal and both are associated with some form of paralysis, and it might not be inappropriate to include the paralysis accompanying Huntington's chorea in that group of cases described as "pseudo-general paralysis"—a term applied by Fournier, and referred to by Dr. T. B. Hyslop,[4] as including ordinary general paralysis with remissions, also paralysis, more or less general, which may result from, or follow, alcohol, lead, or syphilis.

I am aware that the suggestion of pseudo-general paralysis is open to a retort from the logical mind that a thing is or is not, and that a disease is either general paralysis or it is not, but as clinicians we know that there are a number of atypical forms which for want of exact knowledge are most conveniently and expressively grouped as such. Whilst not personally subscribing to this somewhat comprehensive and inclusive classification of general paralysis, and whilst recognising the variety of mental affections accompanying true general paralysis, one's own experience can relate the association of mental deterioration with such cases as Friedreich's hereditary ataxia with choreiform movements, paramyoclonus multiplex, and some of the spinal system lesions (amyotrophic lateral sclerosis, bulbar paralysis, and chronic muscular atrophy) which at infrequent intervals are met with in the larger asylums for the insane.

It is only by such records as that furnished by Dr. Peachell that we shall succeed in further grouping the many varieties referred to as pseudo-general paralysis. In a recent report of all the nervous and mental cases that have come under treatment in one year in the Central Municipal Hospital for the city of Dresden, the proportion of cases of Huntington's chorea was, I believe, only three, but I speak from memory. In the statistics of St. Bartholomew's Hospital, London, for 1904 there are 64 cases of chorea, seven cases of insanity, but none indexed under the term Huntington's chorea. My own experience of over 10,000 male and female insane persons admitted into the London County Asylum at Claybury leads me to believe that this variety, excluding senile chorea, does not occur in asylums more often than about once in every 3000 cases—if as frequently.

Claybury.

[2] Archives of Neurology, p. 607, Case 19, Fig. 21.
[3] Ibid., p. 611.
[4] Transactions of the Medical Society, vol. xxvi

SOME REMARKS ON THE PREVENTION OF APPENDICITIS[1]

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IN bringing forward this subject before our society I think that some explanation is due to its members. In the first place, it has been discussed very fully of late; and in the second place, at first sight it may appear to have little to do with balneology. As my paper progresses I hope to give an answer to both statements. I think that there can be little doubt that appendicitis has much increased of late years. Although many years ago cases of appendicitis were almost invariably put down as peritonitis, yet these peritonitic cases were less numerous than we meet with to-day. The type of case I believe has also changed, as in many other diseases, for the so-called simple or medical cases we see less frequently than we used to. How this increase in number and alteration in type of cases have been brought about I hope to show later.

Before passing on to the clinical aspect of my paper it is well to say that there seems no doubt that the real starting point of the appendicular peritonitis is the presence of the bacillus coli communis in the appendix; yet this statement requires an explanatory note, for the above bacillus is always present in large numbers through the whole alimentary canal from the mouth to the anus; again, it varies greatly in its virulency. It is only when the bowel becomes the seat of any morbid change that the bacillus, so to speak, comes into play. Thus any change brought about in the bowel by constipation, diarrhœa, obstructed bowel, or congestion of the bowel becomes of immense importance. Thus it seems that for an attack of appendicitis to occur there must be some lesion of the appendix to allow the escape of the bacillus and the bacillus must be in a state of virulency. Ordinary or simple catarrh of the appendix is evidently of common occurrence. Post-mortem examinations show this. It generally leads to no symptoms and is not often clinically diagnosed. But there is a further stage of the trouble in which more or less inflammatory material is thrown out. This material may go on to the formation of pus or be entirely absorbed.

Coming now to the practical or clinical side of our subject, everyone must at once be struck with the change of mind which has taken place in respect to the treatment of appendicitis. A few years ago all cases of appendicitis were admitted into the medical wards and treated by the physicians. Now surgeons seem to claim these cases and all writers and speakers of to-day when discussing the subject of appendicitis refer to it almost entirely as requiring surgical treatment. This was particularly brought out at a meeting of the Royal Medical and Chirurgical

[1] A paper read before the British Balneological and Climatological Society on Dec. 7th, 1905.

Society on Feb. 28th last when Sir Frederick Treves opened the discussion on the Subsequent Course and Later History of Cases of Appendicitis after Operation. Although the terms of the title of the discussion practically precluded the preventive or medical aspect of the subject, they nevertheless showed the trend of the feeling of the profession at the present time on this subject—viz., the surgical side, and practically ignoring the preventive or medical part. It is because I believe that this latter part of the above has been forgotten of late that I bring it forward for your consideration this afternoon. I maintain that the purely surgical treatment of this disease, although, of course, right in its proper place, is treatment at the end of it; and all scientific and sound treatment of disease should aim at the prevention of disease or treatment in its very early stages. There is always a difficulty in discussing, especially with the lay public, the two great lines of treatment—(1) the preventive, and (2) the surgical; the former method can hardly be appreciated by the patient, for the disease has not yet come on; there is no pain, sickness, or general feeling of illness. But in the advanced stage of the disease, in which an operation has relieved all the above symptoms, the patient is not likely to forget the great benefit received. In other words, it is very difficult to get carried out rules of diet, exercise, &c., in order to prevent a disease, however serious, which the patient knows nothing about, and of the consequences of which he is entirely ignorant. Still, I maintain, if this disease is to be stamped out or, at any rate, brought under control, the real clinical causes of it must be studied and much more attention must be paid to the carrying out the rules by which we think the disease can be avoided.

I believe that the most prominent and active cause of appendicitis is *constipation*, a lodgment of undigested matter or fæcal masses in the bowel. It is often very difficult to decide on the presence of constipation, for the daily evacuation is not sufficient to settle this point. In those extreme cases in which patients come to us saying that they are suffering with diarrhœa, on rectal examination the lower bowel may be discovered to be entirely blocked up with hard masses of fæces; but apart from these there may exist hard fæcal lumps in the hepatic, splenic, or sigmoid flexure of the colon, and even in the small bowel, with a daily natural stool. I have on two occasions suffered from acute attacks of appendicitis, at an interval of a twelvemonth, both of which I traced to constipation. The cause of the second attack was most clear to me. I was travelling by quick stages along the south coast of France visiting the various health resorts in that neighbourhood. My bowels had been confined for four days and on the fifth my attack commenced and lasted for eight days. It is the experience of many patients that when the bowels have not been opened an attack of appendicitis is apt to occur. I think that our ancestors and the old physicians and apothecaries insisted much more strongly on the need and importance of regular and thorough bowel action than we do at the present day. The regular dosage with salts and black draught had much more to do with the prevention of intestinal toxæmic conditions than perhaps we even to-day are prepared to admit. Practitioners in those far-off days had more time to study clinically the symptoms of disease than the over-wrought student and precise physicians of to-day. Men in those days were great observers and they noticed that free stools kept the head clear and the body cool.

Now there are a good many conditions which have increased of late years which are more or less associated with constipation directly or indirectly, such as oral sepsis, excessive and unnatural eating, as seen in our modern hotels, unsuitable foods, alcoholism in its various forms, weakened abdominal muscles, and wrong method of stooling; each of these requires some notice. "Defective masticating teeth are exceedingly common among the subjects of this disease, and especially among those who have passed the period of youth. Over and over again it would appear as if the want of proper and efficient teeth had been the direct cause of the attacks. Such patients often bolt their food and such meat as they eat can hardly reach the stomach in a condition fit for complete digestion. The bolus passes into the bowel still ill-digested. It fails to stimulate normal peristalsis, it is prone to lodge in the great receptacle—the cæcum—where it decomposes and if there be any existing lesion of the appendix must tend to encourage the morbid change." (Treves.)

In connexion with this question of the teeth I have often wondered why dentists have not paid more attention to the prevention of decay. Surely something might be done to prevent the almost universal decay of teeth that we now witness in all classes of the community and at all ages. We are always hearing of the bad results, and in some cases apparently very serious consequences, of oral sepsis, and yet stopping the teeth or their extraction seems at present the only remedy, forgetting that no artificial substitutes in the mouth can fully take the place of sound teeth naturally fixed. I also might refer at this stage of my paper to the present faulty mastication which now necessarily takes place with the soft artificial foods which are in vogue. This has been prominently brought forward and constantly urged by one of our Fellows, Dr. Harry Campbell. The full significance and the evil resulting from this mode of feeding primarily as regards gastric and intestinal digestion, and secondarily as regards the general system of the patient, are not to-day fully appreciated.

Coming now to the question of food, there can be little doubt that a great change has come about in our methods of eating, also in the quality and quantity of food we take. Personally, I cannot help thinking, and many hold this opinion, that the enormous amount of iced foods, in the shape of meat, fish, game, &c., which are now taken plays an important part in many of our intestinal troubles. The above custom seems at present a necessity, and it seems little use to say very much about it. Yet for a long time I have thought that there are decided dangers connected with the iced food traffic. Then again, as a rule, I think that nearly all of us are eating too much, too quickly, and not taking sufficient rest after the meals. It is not a fair argument to say that our ancestors ate as much, for it must always be remembered that they lived and exercised much in the open and fresh air, whilst many people to-day who eat most take little or no exercise. Again, the modern *table d'hôte* dinner, as taken by the well-to-do people, is not favourable for peace and quietness among the contents of the digestive canal, nor can the present state of the knowledge of cookery among the poorer classes be considered conducive to their well-being. When the question of feeding is more carefully and systematically considered I believe that it will be found that it plays an important part in intestinal inflammation; also, apart from the quality and quantity of the food taken, irregularity of eating tends to set up gastric and intestinal irritation, and conceivably inflammatory conditions, such as appendicitis. Commercial travellers seem more liable to the foregoing conditions than other people.

Another point worth considering is the present method of stooling, and also the little use we make now of our abdominal muscle for the thorough expulsion of fæces and flatus. The old-fashioned and natural method of stooling on the ground, with the thighs flexed on the abdominal walls, so that in straining the inguinal and femoral canals are practically closed, has now gone out of fashion, and the modern unscientific, though comfortable, method is substituted for it. I believe that the former method of stooling is made more conducive to the thorough emptying of the bowel and therefore less likely for obnoxious and poisonous materials to be left behind. I am glad to see that there are already in the market some water-closets made which to a great extent carry out the natural methods. Again, the stays as worn by women in the present day must more or less weaken the expulsive action of the abdominal muscles. The practice of kneeling down, bringing the buttocks in contact with the heels, and the anterior chest wall in contact with the thighs, three or four times every morning, is a good and beneficial exercise, one which I have practised myself for some time past and recommended it to others.

In coming now to the part played by climatology and balneology in reference to the prevention of intestinal diseases we as a society are particularly interested. The question of climate and the various uses of mineral waters have been considered for many centuries, long before the Christian era. These waters are scattered in abundance throughout the whole continent of Europe and have more or less been systematically used by all classes of people and for many diseases. It has often been said that the people who need these waters—I am referring just now to those that are taken internally—do so on account of the excessive eating or indigestible food which they have indulged in previously to the treatment by balneology. This may be true in some cases, but I am sure that the custom of drinking special waters and of bathing is far too prevalent a custom to think that all these thousands of people who wash themselves inside and outside have over-eaten. To my mind

this exceedingly common continental custom of "water drinking" periodically and regularly must have had a very beneficial effect in the cure and the prevention of many intestinal diseases. These waters, existing in great varieties in great numbers of places, in great abundance, of various temperatures, and in different climates, seem to me to have a purpose that we in England have scarcely recognised or appreciated. We possess in our own country most valuable waters. It is not my purpose to describe these, which I think will be more fully understood and scientifically given when their *raison d'être* is understood. In these days of strife and stress, living, as most of us do, in towns, our habits tend more and more to be sedentary. The internal organs under this mode of living are apt to get clogged and to work heavily, and unless they get unloaded by some means the system suffers. I can hardly imagine anything more beneficial to the economy of the body than a course of waters suitably taken at one of our bathing resorts. I believe the regular washing out of the intestinal canal would do much to prevent a large number of cases now known as colitis and appendicitis.

I have avoided quoting cases in support of views expressed in this paper; it would take too long and probably be wearisome to you. Every kind and form of appendicitis are daily recorded. For the last 25 years it has fallen to my lot to see both in hospital and private work a large number of the above. A large number have required immediate operation, but a larger number have recovered under medical treatment. The title of my paper precludes the later or surgical aspect of the subject. It almost entirely deals with the prevention of the disease. Still, I see and read that there is a strong tendency, not so strong as it was, I think, to ignore the treatment of the early stage of the disease, at which time I believe that much good can be done by suitable and timely treatment.

What I have tried to bring out in this paper and wish the profession earnestly to consider is some methods or modes of treatment which will prevent to a great extent this now common disease of the appendix and also allay the morbid fear about the disease which is unhinging a large number of nervous people. I feel that a great deal more might be done than is being carried out to stamp out this disease. The operation that is constantly being done cannot be considered the true scientific treatment, although absolutely necessary in many cases when the disease is far advanced. My paper is essentially a clinical one and I do not claim for it any true scientific standpoint. Yet many of the best methods of treatment, I may also say most, have been discovered experimentally, before they have been explained scientifically. To give two examples. Ague was stamped out in Romney Marsh by careful and systematic drainage, long before the real cause of it was even thought about. The drainage disturbed and upset the mosquito and then the ague lessened and gradually disappeared. The giving of quinine was only a passing phase in the evolution of the treatment of the disease, although a most beneficial and comfortable crutch; quinine never lessened the amount of ague, although it modified the attack. Once more the operation of removal of the tongue for cancer has been one of the most unsatisfactory ones in the whole range of surgery. Clinically, this fact has been known for many years, but now it has been clearly demonstrated by Mr. G. L. Cheatle that almost invariably there is present in the genio-hyoid and the genio-hyo-glossus muscles cancer growth which is not touched at all in the ordinary operation for the removal of the tongue. Some day, before long, I hope we shall be able to demonstrate conclusively the exact cause and method of an appendicular attack. In the meantime, my experience leads me to think that some such view as I have attempted roughly to give you in this paper will partially explain the increasing number of cases of appendicitis that we meet with to-day.

Folkestone.

THE AFTER-CARE ASSOCIATION.—The council of the After-Care Association earnestly appeals for gifts of money or clothes to assist poor persons discharged recovered from asylums for the insane and for donations and subscriptions to carry on and to extend the work. Branches have now been formed in connexion with asylums in various parts of the country. Contributions will be thankfully received by the secretary, Mr. H. Thornhill Roxby, Church House, Dean's Yard, Westminster, London, S.W. The bankers are the Union of London and Smith's Bank, Argyll-place, Regent-street, W.

ON RAW MEAT ALIMENTATION IN TUBERCULOSIS.[1]

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THE systematic use of raw meat in the treatment of tuberculosis is not a new proposal. The method has had able exponents. I would mention more particularly in France Richet and Héricourt, who have submitted cogent evidence in support of the system. Notwithstanding, the treatment seems to have been received less favourably, perhaps less seriously, than its importance warrants. Certainly its adoption has been less general than its results would lead us to expect. The purpose of the present paper is to submit a brief summary of experience extending over a good many years in the treatment of tuberculosis by means of systematic alimentation by raw meat in one or other form.

From the clinical standpoint one of the earliest indications of invasion by tuberculosis is the sense of muscular fatigue experienced by the individual attacked. This initial feeling of languor and lack of energy remains a more or less persistent feature throughout, becoming intensified with the progress of the disease. In keeping with this there is quickly determined an atrophy of muscular tissue frequently out of proportion to the loss of adipose tissue. The skeletal muscles waste conspicuously. Myotatic irritability to direct percussion is increased. Wasting of skeletal muscles is associated with wasting of the heart muscle, the muscular wall of the arteries and the muscular wall of the gastro-intestinal canal. The latter finds its clinical expression doubtless in the rapid, feeble pulse and defective peristalsis. A similar change in relation to the skeletal muscles may be traced in bovine and avian tuberculosis, where the muscles may become enormously wasted, while large collections of fat remain present in connexion with the abdominal viscera. These considerations seem to support the view which on experimental grounds I submitted in 1887—viz., that the toxin of tuberculosis is especially a muscle poison and that the ultimate cause of death in uncomplicated pulmonary tuberculosis lies in poisoning of the heart muscle.

Theorising on such points I was led a good many years ago to practise raw meat alimentation in tuberculosis. The results obtained were so satisfactory that I have continued the method ever since in much the larger proportion of my cases, both in hospital and in private. The striking researches of Richet and Héricourt placed the method of raw meat alimentation (zomotherapy) on a scientific basis. They found in the case of dogs inoculated artificially with tuberculosis that all such animals fed in the ordinary way speedily underwent a progressive emaciation while animals fed on raw meat in one or other form, in place of emaciating, put on considerable weight. They found that the muscle juice freshly expressed from the meat was as efficacious as the meat itself. Cooked meat was of practically no value.

Mode of exhibition.—It must be kept in view that in order to be effective the alimentation by raw meat must be systematic and continued. Such alimentation is not a mere variation in the patient's dietary to suit his varying humour or caprice. It is a therapeutic procedure determined by the patient's needs in the light of clinical and experimental observation. Accordingly the form of exhibition and dose ought to be regulated in the way in which we regulate the exhibition of other remedies. I have found no difficulty in accustoming the patient to the use and even enjoyment of the raw products to be described. Patients quickly overcome any preliminary distaste. When they realise the advantages of the treatment they take the raw meat with avidity.

Form of exhibition.—It is usual to order it in one of three methods. 1. Pounded raw meat—i.e., finely minced or bruised beef slightly seasoned with salt, &c.—served *natural*, like mince collops, cold or gently warmed throughout, say from a quarter of a pound to half a pound twice or

[1] A paper read before the International Congress on Tuberculosis held in Paris, Oct. 2nd-7th, 1905.

thrice daily. The meat should be perfectly *fresh*. 2. Beef juice, prepared as follows. Extract half a pound of *fresh* meat in half a pint of cold water plus half a teaspoonful of salt for from one and a half to two hours at 35° C. Express the liquid through a cloth. Or the juice may be expressed from the meat directly without the addition of water with more powerful pressure. The meat juice must be freshly prepared for use on each occasion. 3. Raw meat soup prepared as follows. Take half a pound of finely minced *fresh* meat and mix in a bowl with sufficient milk to produce a thick uniform paste. Immediately before serving add half a pint of milk at 60° C.; or the soup may be made in a similar fashion with stock of beef, or chicken, or veal in place of milk.

In the largest proportion of cases I have exhibited raw meat pure and simple, and the more experimental observations, to be referred to presently, were conducted on patients fed on raw meat. All the observations go to show that cooking of the meat modifies to a remarkable degree the absorption and retention of the nitrogen both in tuberculous and physiological subjects.

Experimental observations.—Observations to determine the value of raw meat alimentation have been recently conducted by Dr. J. J. Galbraith in the research laboratory attached to my clinique in the Royal Victoria Hospital for Consumption, Edinburgh. These observations were made in relation both to tuberculous and physiological persons. After the subjects of experiment had been brought as far as possible to a nitrogen equilibrium observations were made for three successive periods: (1) on cooked meat; (2) on raw meat; and (3) on cooked meat again, the diet remaining otherwise uniform and as simple as possible for the purposes of analysis. The results may be summarised as follows. 1. The exhibition of raw meat was followed by a marked increase of nitrogen retention, even with a diminished intake. 2. Intestinal metabolism was improved. 3. There was a rapid increase in hæmoglobin. 4. Digestive leucocytosis (lymphocytosis) was increased, sometimes to more than double that occurring in relation to cooked meat.

Clinical observations.—These, which extend over a long period, may be shortly summarised as follows. 1. General appearance. This quickly improves. The pallid, soft aspect is replaced by a look of health and vigour. 2. Muscularity. The soft flabby muscles fill up and become firmer. With increasing firmness of muscle the patient's sense of fatigue lessens and he becomes keen for effort. Myotatic irritability tends to lessen and finally to disappear. 3. Circulation. The pulse-rate is lessened and a corresponding improvement is effected in the blood pressure, these phenomena being presumably the expression of improved muscularity in the heart and improved tone in the muscular walls of the vessels. 4. Blood. There is a rapid increase in hæmoglobin. This is conspicuous even in patients who may have made fair progress on a cooked dietary when afterwards placed on raw meat. Within a few days the hæmoglobin runs up from 10 to 20 per cent. There is a remarkable increase in digestive leucocytosis. Negatively, I note that hæmoptysis does not follow the adoption of the method. I have frequently continued raw meat alimentation during the course of hæmoptysis. I emphasise the point because some physicians would exclude meat in case of hæmorrhage altogether. 5. Gastro-intestinal functions. These become simpler and more effective. Gastro-intestinal discomfort is notably reduced. Intestinal metabolism is simpler and more complete and the stools improve in character. Detailed observations in relation to gastric digestion by means of examination of stomach washings, recently undertaken by my resident physician, Dr. B. M. Cunningham, afford corroborative evidence under this head. 6. Temperature. The temperature is influenced favourably. This depends doubtless on a variety of causes. It frequently follows improvement in gastro-intestinal function. Sometimes with no other modification of treatment save that under discussion a highly irregular temperature gives place within a week or two to an almost uniform range about normal. 7. Weight. Here a distinction must be drawn between increased weight dependent on increase of fatty tissue and that associated with increased size and firmness of muscle. The former increase is of doubtful value to the patient. Sometimes it is positively harmful, the unfortunate individual moving about with increasing difficulty and considerable dyspnœa. On the other hand, increase of weight associated with increased size and firmness of muscle occurs on raw meat alimentation without much addition of fat. 8. Local lesions. All these in my experience tend to be influenced favourably, whether occurring in relation to lungs, larynx, glands, intestine, or elsewhere. The change which is evident in superficially disposed tuberculosis—e.g., in glands and skin—is sometimes most remarkable.

It has been my endeavour to compress into very brief summary a prolonged series of close observations. From frequent conversations with colleagues I am satisfied that the significance of raw meat alimentation has been insufficiently recognised. My purpose in making the present communication will have been attained if a method of treatment which my experience lends me to regard as invaluable receives a fairer and more complete trial. Such trial involves the strictly systematic use of raw meat in one or other form, not the occasional replacement of other dietary by raw meat. Cooked meat occupies a different platform. So do the various commercial beef powders and beef extracts. From the therapeutic standpoint I have found these of little value.

VENTRAL FIXATION OF THE UTERUS BY A NEW METHOD.

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THE following operation was devised in order to avoid certain defects in the ordinary procedure of ventral fixation of the uterus. 12 patients have now been operated upon by this method and the results are so satisfactory that I think it right to publish a description of the operation. It was intended for the relief of patients suffering from severe forms of prolapse of the uterus, with cystocele and rectocele, with or without rupture of the perineum. Other patients with less severe forms of misplacement of the uterus have been treated in the same way, but as it was not for them that the operation was intended and as there are other satisfactory means of dealing with such cases I propose to report only those in which the prolapse was severe and had lasted a long time and for which the usual treatment with various forms of mechanical support had failed. For such patients three things can be done—namely, perineorrhaphy or colporrhaphy or ventral fixation of the uterus—but none of these operations, either singly or combined, can be sure to give permanent relief.

Rupture of the perineum is neither the only cause nor the usual cause of prolapse of the uterus. Many women have complete rupture of the perineum, even extending through the sphincter ani, and yet they work for years in that condition without suffering from prolapse of the uterus. On the other hand, many of the worst cases of procidentia uteri occur in young unmarried women in whom there is no tear whatever in the perineum. General laxity of all the pelvic and perineal connective tissue would appear to be the chief cause of prolapse of the uterus. It is not surprising therefore that *perineorrhaphy* frequently fails to cure the prolapse. For the same reason *colporrhaphy* also fails both when alone and when performed in combination with perineorrhaphy.

Ventral fixation of the uterus as usually performed often relieves the patients but it cannot be relied on to do so and there are in the operation certain inherent defects to which I shall presently refer. In very severe cases a combination of all three operations may be performed—that is, of perineorrhaphy, colporrhaphy, and ventral fixation, but such a combination has two serious drawbacks. In the first place, it is a very severe operation to which to submit any patient, and it is particularly serious in the case of big, fat women. In the second place, it retains the inherent defects which belong to the operation of ventral fixation. I hope to show that by the employment of another method of ventral fixation perineorrhaphy and colporrhaphy may be dispensed with and that thus the severity of the treatment may be lessened, and also that the uterus may be securely suspended from the anterior abdominal wall with certainty that it will not again become prolapsed.

Ventral fixation of the uterus as usually performed has for its main object the formation of adhesions between the peritoneal surfaces of the uterus and of the anterior abdominal

wall. It therefore acts upon a wrong principle, for there is a natural tendency for all adhesions in the abdominal cavity to disappear, no matter from what cause they may arise. They are formed apparently for the same purpose as the callus around a fracture—namely, to keep adjacent injured surfaces immoveable until repair has taken place, and just as the callus around a fracture is for the most part removed after the bone has become united, so peritoneal adhesions tend to disappear after repair has taken place. Whether this be a correct reason for the disappearance of peritoneal adhesions or not, it is yet a fact that in many cases of ventral fixation of the uterus all adhesions disappear in the course of time and the uterus is found lying free from the abdominal wall. In other cases the adhesions do not entirely disappear but they stretch, and in the progress of lengthening they become long, thin bands attached at one end to the abdominal wall and at the other end to the uterus. I have seen a case in which the operation of ventral fixation was being performed a second time, some years after the first operation, in which there was a band eight inches long and only a quarter of an inch broad. No operation which can produce such a dangerous band in the peritoneal cavity can be looked upon as quite satisfactory. Thus two objections to the usual method of ventral fixation of the uterus arise: first, the formation of dangerous bands in the peritoneal cavity; and secondly, the failure of the operation whether the adhesions disappear entirely or merely stretch; in either case the uterus again becomes prolapsed. There is also one immediate danger associated with the usual method—namely, hæmorrhage. In order to carry a suture through the substance of a tough organ like the uterus a large sharp needle must be used. There is commonly some oozing of blood from the needle track and it usually ceases with the tightening of the suture, but I know of one patient who died from hæmorrhage into the peritoneal cavity from the needle punctures made in the course of ventral fixation of the uterus.

The method which I have adopted of fixing the uterus to the anterior abdominal wall is free from the immediate danger of hæmorrhage and from the remote danger of long bands of adhesions and it secures the uterus in its new position in such a manner that it cannot possibly fall away. The method is as follows:—

1. Open the abdomen in the middle line from the pubes to the umbilicus.

2. Retract the left side of the wound and take hold of the left round ligament of the uterus, then draw on it until it is tense between the point held and the inguinal canal. Catch it with two clip forceps as near to the inguinal attachment as can conveniently be done and divide it between the clips. Ligature the distal end and remove that clip, dropping the stump. Retain the clip on the proximal divided end.

3. Repeat this on the right side.

4. By means of the two clips upon the proximal divided ends of the round ligaments draw the uterus up towards the abdominal wound. Some tension will thus be made upon the peritoneal attachments of the round ligaments and, as a rule, the peritoneum will stretch sufficiently to allow the uterus to come up into the wound, even, in some cases, as high up as the umbilicus, but it may be necessary to make a few cuts with the scissors in the edges of the peritoneal attachments, in which case care must be taken not to cut right up into what may be called the "axillæ" of the round ligaments lest any vessels be injured. They are troublesome when cut. Lift the uterus by its round ligaments as high up in the abdomen as it will reach without undue tension and with the eye mark the position. In some of the cases of complete procidentia the uterus was purposely left outside the vulva before the abdomen was opened and it came up without any difficulty when drawn upon by the round ligaments.

5. At the place to which the fundus of the uterus reaches catch hold of the skin and superficial fascia on the left side of the wound and draw on them, at the same time separating them from the abdominal aponeurosis by thrusting in the handle of a scalpel as far as the outer edge of the rectus abdominis muscle. Withdraw the handle of the scalpel and pass a pair of clip forceps into the track thus made as far as a point one and a half inches from the middle-line incision and then thrust the clip forceps through the aponeurosis, the rectus muscle, and the peritoneum into the peritoneal cavity; with the clip catch hold of the end of the left round ligament and draw it through the abdominal wall, keeping the clip attached.

6. Repeat this on the right side and then by dragging upon both round ligaments the anterior surface of the uterus will be seen to come up and to lie against the anterior abdominal wall.

7. Whilst an assistant keeps up traction upon both round ligaments and so retains the uterus in its new position sew up all the abdominal wound, except the superficial fascia and the skin, in layers with catgut. Let one or two of the sutures of the peritoneal layer be passed through the peritoneal coat of the uterus and thus occlude the passage between the abdominal wall and the uterus, through which it is conceivable that a loop of small intestine might find its way and so become obstructed if the passage were not closed. It is for that reason only and not for the purposes of suspension that the opposed surfaces of the uterus and the abdominal wall are sutured together.

8. Lay the left round ligament at right angles over the front of the aponeurosis and across the middle line as far as the point at which the right round ligament emerges. Ligature the left round ligament at that point and use the ends of the ligature to sew the ligament to the aponeurosis there. Cut off any redundant ligament.

9. Do the same with the right round ligament and the two ligaments will then lie side by side across the front of the aponeurosis. Additional security is made if a few sutures attach the edges of the round ligaments to one another and also to the aponeurosis, but care must be taken to see that too much of each ligament is not included in each suture lest the blood-supply beyond be diminished.

10. Suture the skin and the operation will be completed.

The height to which the uterus is raised varies in each case and depends upon the extent to which it had been prolapsed prior to the operation. In some cases, in which a vaginal examination was made before the patients had left the operation table, it was just possible to reach the cervix uteri with the index finger, while in others the uterus did not require to be raised so high.

In severe cases where there had been a large cystocele and rectocele there was considerable laxity though no prolapse of the vaginal walls when examined at the conclusion of the operation. In others there were varying degrees of rupture of the perineum, but only in two cases, in each of which the rupture extended through the sphincter ani, was the perineum operated upon.

The advantages of this method appear to me to be as follows: 1. It is a simple operation in which there is a minimum amount of bleeding and shock. 2. It can be performed rapidly, a point of considerable importance in fat women. 3. There is no fear of hæmorrhage from needle punctures of the uterus. 4. Patients have very little pain during the first few days as compared with those upon whom the usual operation has been performed. They are able to be moved in bed more easily and can, without dragging pain, lie comfortably on either side. 5. There are no sutures to be removed. 6. There is no fear of the formation of long bands of adhesions. 7. The uterus is permanently held in excellent position.

Incidentally another advantage follows this method. In those cases in which there was a cystocele or a rectocele or both and in which, immediately after the operation, the walls of the vagina were redundant, it has been found that the cure of the prolapse of the uterus has been followed by reduction of the "slack" of the vagina, a fact of much interest as showing that their overgrowth had been due, at any rate in part, to congestion which was corrected as soon as the uterus was held high, the correction being followed by a return to the normal state. In support of this is the fact that of 13 women upon whom I know that the operation has been performed, four have become pregnant within a few months, showing that the lining membrane of the uterus, like the vaginal walls, has also returned to a normal condition. Two patients have, since the operation, gone safely through normal pregnancies and confinements and the uterus in each case is now exactly as it was left at the operation. Two other patients are far advanced in pregnancy.

All those patients whom I have been able to trace and to examine have with one exception expressed themselves as comfortable and free from their former symptoms, and in each case the uterus is in good position. The one exceptional case is that of a woman who returned home in a fortnight after her operation and at once resumed hard work in her house. In one case there is a ventral hernia which I

presume is due to some fault in the suturing of the abdominal wall, but even in this case the uterus remains high up in its new position.

Table giving Particulars of 12 Cases where Ventral Fixation of the Uterus was Performed by a New Method.

Number of case.	Age (years).	Operation.	Date.	Remarks.
1	40	Ventral fixation and perineorrhaphy.	9/5/02	Oct. 18th, 1905. Scar sound. Os uteri can just be reached. Uterus against abdominal wall.
2	43	Ventral fixation and perineorrhaphy.	24/6/02	Oct. 18th, 1905. Ventral hernia. Uterus in normal position.
3	30	Ventral fixation.	31/7/03	Oct. 18th, 1905. Scar sound. Os uteri can just be reached. Uterus against abdominal wall. Confinement six weeks previously.
4	41	,,	26/11/03	Cannot be traced.
5	39	,,	31/12/03	,, ,,
6	28	,,	19/2/04	Oct. 18th, 1905. Scar sound. Uterus in normal position.
7	50	,,	19/2/04	Oct. 18th, 1905. Scar sound. Uterus against abdominal wall. Os uteri can just be reached.
8	49	,,	25/3/04	Nov., 1905. Uterus again prolapsed.
9	33	,,	4/4/04	Cannot be traced.
10	31	,,	2/9/04	Oct. 18th, 1905. Scar sound. Os uteri can just be reached. Uterus against abdominal wall. Confinement ten weeks previously.
11	22	,,	5/9/04	Oct. 18th, 1905. Scar sound Uterus against abdominal wall.
12	22	,,	30/9/04	Nov., 1905. Patient eight and a half months advanced in pregnancy.

Newcastle-upon-Tyne.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CASES OF RELAPSE IN MEASLES.

BY R. GERALD LEACH, M.B., CH.B. EDIN.

THE following cases may prove of interest to some readers of THE LANCET. During a recent epidemic of measles I met with four cases of relapse within three weeks of the first attack—that is to say, the patients suffered from a complete second attack of the disease.

The first case, a girl, aged 10 years, had a typical attack of measles with all the usual symptoms and a well-developed rash. Recovery took place without any complications ensuing. Two weeks afterwards she was brought to me with a history of three days' continuous fever and she then presented all the usual premonitory symptoms of measles, such as pyrexia, catarrh of the upper respiratory passages, redness of the eyes, photophobia, &c. There was a well-marked rash present in the throat. Next day a typical measly rash appeared all over the body and the disease then ran a normal course to recovery.

The second patient, who was an infant, aged 11 months, had an ordinary attack of measles. Two days after the disappearance of the eruption the child's temperature began to rise again and in two days more the eruption reappeared, this time more abundantly than in the first attack. In this case broncho-pneumonia ensued but ultimately complete recovery took place.

The third patient was an infant, aged 16 months, living in the same house as the previous case. The child's second attack took place eight days after the first eruption had faded, and was complicated by severe diarrhœa. This patient also recovered, but convalescence was very prolonged.

The fourth patient was a child three years old. The first attack was very mild with few constitutional symptoms, though the rash was typical and abundant. The temperature, however, in this case did not come down to normal after the disappearance of the eruption and on the eleventh day a new rash appeared which at first was discrete but later became so abundant that the whole surface of the body was covered. This eruption remained out for seven days before beginning to fade. On the twenty-second day from the commencement of her illness the patient developed a mild broncho-pneumonia. She ultimately recovered.

In the text-books at my disposal I cannot find any description of similar cases, though in a dictionary of medicine some three or four cases are mentioned, in one of which there occurred two relapses within a month. Possibly, however, these cases are not as rare as I imagine and I should be glad to know if any of the readers of THE LANCET have met with any. At any rate, the occurrence of four cases in an epidemic (262 cases) seemed to me sufficient excuse to place them on record.

Ledesma, Provincia de Jujuy, Argentine Republic.

A CASE OF OPERATION FOR EMPYEMA, INCLUDING RIB RESECTION, UNDER LOCAL ANÆSTHESIA.

BY R. G. MACDONALD LADELL, M.B., CH.B. VICT.

THE dangers attending the administration of a general anæsthetic in cases of empyema are well known and probably there are a great many surgeons who make use of local injections. At the same time, the fact that it was considered worth while to report a case of tracheotomy under local anæsthesia in one of the medical journals a few weeks ago leads me to think that the possibilities of this form of anæsthesia are not as yet fully recognised by the profession.

The patient whose case is now described was a boy, aged ten years, suffering from empyema on the left side consecutive to pneumonia. For this condition an operation was performed on Dec. 1st, 1905. The anæsthetic solution I employed contained eucaine and adrenalin in the same proportion as in "soloid" eucaine and hemisine, but having the ingredients in hand I made it up from them. In the course of the operation I used about six drachms of this solution. Part of it, however, was wasted as it escaped from the open wound. I first injected the skin along the line of incision, after placing a drop of pure carbolic acid on the skin to render the preliminary puncture painless. I then made the usual incision right down to the rib, at which stage the patient remarked that his side felt "funny." Before proceeding further I injected some more solution into the intercostal muscles above and below the rib, passing the needle parallel to the rib. No further injections were required and the operation was completed in the usual way. When freeing the rib from the periosteum, and again when the rib was being cut through, the boy complained of being "hurt." As he did not cry or attempt to move it was evident that the pain was not acute and probably it was no more than is experienced when a tooth is broken off by forceps. The only time he appeared really to suffer was when I passed my finger into the opening in the pleura and that, of course, was only momentary. There was no shock, neither was there much pain during the night following the operation. One and a half pints of pus were evacuated at the time and the boy is now making a good recovery.

Holbeck, Leeds.

NOTE ON THE THERAPEUTIC EFFECTS OF UNGUENTUM HYDRARGYRI IN A CASE OF TUBERCULOSIS.

BY J. T. C. NASH, M.D. EDIN.

THE patient in the present case was a thin woman, 45 years of age, who suffered from pulmonary tuberculosis with advanced lesions in both lungs; she was also subject to rectal hæmorrhages and obstinate constipation. On examination she was found to have a retroverted incarcerated uterus.

She developed the following symptoms, which were suggestive of profound nervous disturbance, if not of grave organic brain mischief—namely, Jacksonian epilepsy of the extensors of the right arm and leg, constant headache, and frequent paroxysms of intense agony over the region round the left Rolandic fissure, with inclination of the head to the left side. The special senses were affected to some extent. As regards hearing, on the left side subjectively there was tinnitus and objectively there was no bone conduction (as tested by a watch placed on the left parietal and left mastoid process), a watch not being audible except on contact with the external meatus. The sight was impaired, but ophthalmoscopic examination was objected to, as the patient was unable to bear a bright light; no ophthalmoplegia was observed. In the hands there was a subjective sensation as of something big which seemed to be held in them. I was doubtful as to whether the nerve symptoms were due to anæmia or to tuberculous invasion. The above symptoms, which were marked and severe, after resisting treatment by aperients, iron, and iodide of potassium for many days, were rapidly and remarkably dispelled by the inunction of strong mercurial ointment well rubbed into the groin till the patient was salivated. The nervous symptoms never recurred but the mercurial sequelæ—such as salivation, soreness of the mouth, loosening of the teeth, and loss of hair—caused some discomfort for a time. The remarkable effect of mercury is noteworthy. The severe nervous symptoms quite cleared up. The tuberculous mischief in the lungs became quiescent. 18 months later the patient had put on flesh. Ten years later I now learn that the patient is in better health than formerly. She is now aged 55 years. She is the sole remaining member of her family. Her brothers and sisters (four in number) were stated to have all died about the age of 40 years from tuberculosis. Apart from the complete relief which followed the administration of mercury there was no evidence of syphilis. A daughter, aged 18 years, who had waited constantly on her mother developed pulmonary tuberculosis.

Southend-on-Sea.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

The Mammary Glands and the Fœtus.

A MEETING of this society was held on Dec. 19th, Dr. F. W. PAVY, Vice-President, being in the chair.

Mr. S. G. SHATTOCK, after referring to the recent work by Dr. E. H. Starling, which showed that extracts of fœtal rabbit tissues when regularly injected for prolonged periods into the subcutaneous tissue of the virgin rabbit produced enlargement of the mammary gland such as occurs in the pregnant rabbit, put on record some observations of a converse character which he had carried out five years ago. The question Mr. Shattock had put to himself was: Did the enlarging breasts of pregnancy furnish an internal secretion which is necessary for the growth of the fœtus? The mammary glands were removed in a series of guinea-pigs, the ducts being cut across quite close to the under side of the nipple. The complete removal was not itself difficult but the extensive raising of the skin was followed by some necrosis, although the wounds were carefully sutured and sealed with gauze and collodion. In three of the animals the wound completely healed and being in good health a male was put to each. One became pregnant. It was separated from the male and in May, 1901, bore three young, two of full size. One of these was artificially fed and kept alive for six days, when its weight was 56 grammes. Mr. Shattock concluded from this result that the mammary glands during pregnancy did not furnish an internal secretion which was necessary for the growth of the fœtus.

Dr. T. G. BRODIE stated that although Dr. Starling had been successful in producing activity of the mammary glands in some cases, yet in many cases there had been negative results, and he considered that Mr. Shattock's statement gave the impression that the cause of the activity of the gland had definitely been proved, whereas such was hardly the case. He thought it probable that the ovary was largely concerned with the activity of the mammary gland but the question was by no means settled.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.

Appendicitis.—The Climatology of the Fylde Coast.

A MEETING of this society was held at 20, Hanover square, London, W., on Dec. 7th, Dr. G. W. HAMILTON CUMMING (Torquay), the President, being in the chair.

Dr. W. J. TYSON (Folkestone) read a paper entitled "Some Remarks on the Prevention of Appendicitis" which will be found in full at p. 1832 of our present issue.—Dr. E. SYMES-THOMPSON regarded the disinfection and lubrication of the intestinal tract as the two main essentials in preventive treatment. Salol best secured the first and petroleum the second of these requirements. The compressed form of salol was less trustworthy than when given in suspension in petroleum emulsion. Fluid vaseline (ferrol) in dessert-spoonful doses kept up the normal action of the bowel without the danger of purgation, which was to be avoided carefully when the lining membrane of the colon and appendix was in a state of irritation.—Dr. F. M. SANDWITH drew attention to the fact that appendicitis, so common in the United States and the British Isles, was rare among the negro inhabitants of the southern cities of America, while in Egypt the disease was certainly less common among the coloured than among white patients. He thought that this was perhaps due to the great care which coloured races took to avoid constipation; also to their freedom from nervous hurry during and after their meals; and perhaps most of all, to the efficient mastication which their splendid teeth permitted. He also pointed out that it was apparently the races most dependent upon the dentists which were specially liable to appendicitis.—Dr. W. BEZLY THORNE thought that many cases might be spared operation by early treatment. He attributed appendicitis to habitual toxicity of the contents of the bowel and traced that condition mainly to gastro-duodenal and intestinal catarrh leading to fermentative decomposition, which threw on the cæcum, which was the disinfecting chamber of the bowel, more work than it could undertake. He looked on castor oil as combining in the highest degree the qualities of an aperient, a disinfectant, and a bactericide. He concluded by expressing a desire for a consensus of opinion from men in family practice who have unequalled opportunities of observing the antecedent conditions and early stages of the disease.—Dr. PERCY G. LEWIS (Folkestone) had no doubt that appendicitis was due to intestinal sepsis produced by some of the causes mentioned. Errors in diet were responsible in a great measure for the disease and he considered it necessary to teach the people of this country from childhood what food to eat and how to eat it. Thorough mastication was one of the main points to which the attention of young children should be directed.—Dr. LEONARD L. B. WILLIAMS agreed with Dr. Bezly Thorne in the latter's view that appendicitis was due largely to increased toxicity of the bowel. An important point to arrive at seemed to be the cause of this increased toxicity. While admitting that gastro-intestinal catarrh might be one factor he thought that there were certainly others in operation. One of these others was, in his view, the excessive amount of meat eaten by the majority of the population. Appendicitis had been increasingly frequent as the price of meat foods lowered. Another factor in the situation was provided by the increased amount of work thrown upon the intestinal canal by the neglect of the other emunctories. There was in his mind no doubt that much of the work which was intended to be done by the skin was thrown upon the bowel. Appendicitis was not common in those whose skins were active and it would be a good thing if the present ridiculous and unscientific habit of wearing flannel next the skin were discontinued.—After remarks from Dr. A. H. BAMPTON (Ilkley) Dr. TYSON replied.

Dr. F. J. STRONG HEANEY (Blackpool) then read a paper, illustrated by lantern slides, on the Climatology of the Fylde Coast—that sea line stretching from the estuary of the Ribble to Morecambe Bay and comprising the towns of Lytham, Ansdell, St. Anne's-on-the-Sea, Blackpool, Bispham, Norbreck, Cleveleys, Rossyl, and Fleetwood, all of them save

Fleetwood owing their existence to their reputation as health resorts. Statistics were shown comparing the temperature, rainfall, relative humidity, and amount of sunshine of the Fylde, with the corresponding records of other seaside resorts. Allusion was made to local differences of climate. Lytham, situated on the estuary of the Ribble with a southerly aspect and sheltered from the north and east by trees, enjoyed at all times a mild climate and in summer was relaxing relatively to the rest of the district under consideration. As they proceeded northwards from Lytham the climate became progressively more bracing until they reached the out-crop of the boulder clay which seemed to determine the limits of the characteristic Blackpool climate. Dr. Heaney then dealt at length with those cases which did best and worst on the Fylde coast.—Dr. S. P. SUNDERLAND and Dr. SYMES-THOMPSON spoke on the paper and Dr. HEANEY replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases.—Treatment of Fractured Patella by Transverse Wiring.—Relation of Angina Pectoris and Allied Conditions to an Arterio-cardiac Reflex having its Origin in the Abdomen.

A MEETING of this society was held on Dec. 6th, Dr. J. O. AFFLECK, the President, being in the chair.

Mr. CHARLES W. CATHCART exhibited a patient whose patella had been twice sutured on account of fracture. The first fracture was caused by muscular violence. On examination the joint was found to be so filled with blood clot that it was deemed expedient to operate. The interval between the fragments was filled with blood clot and fibrous tissue and the edges of the bones were brought together by means of five chromic catgut stitches. The patient, six months after this first operation, while lifting a heavy weight, tore through this patella again and at the second operation silver wire was employed. There was now complete bony union of the patella.

Dr. BYROM BRAMWELL showed a man, aged 50 years, who suffered from Multiple Lipomata. He was admitted to the Edinburgh Royal Infirmary on account of a pulsating abdominal aorta and the presence of the fatty tumours was then recognised. They were specially numerous on the forearms and thighs and had been present as long as the man could remember. It was not a case of adiposis dolorosa, as he had no discomfort. The case was interesting from the hereditary point of view, as the patient's mother had suffered from a similar condition; this connexion had not previously been noted. Dr. Bramwell also showed a case of Ataxia without any recognisable impairment of the muscular sense occurring in a man, aged 60 years.

Mr. E. W. S. CARMICHAEL showed a child, aged 14 months, after Resection of the Cæcum, the Ascending Colon, four inches of the Small Intestine, and a mass of Ileo-cæcal Glands for Tuberculous Disease.

Mr. DAVID WALLACE showed two cases after Prostatectomy by the Suprapubic Route. The first patient was aged 62 years and had suffered from acute attacks of retention; 26 days elapsed before the urine came by the urethra. His recovery was now complete. The second patient was 68 years of age and together with an extremely contracted bladder there were vesical calculi. Urine was passed by the urethra on the sixth day after the operation and after the tenth day none came by the artificial opening. The man was now quite well five weeks after the operation.

Mr. F. M. CAIRD showed a man, aged 26 years, who had recovered from Tetanus. The middle finger of his right hand was crushed on Sept. 17th, 1905, and was dressed once at an hospital, after which it was dressed at home. On Oct. 9th he had severe paroxysms of abdominal pain which were at first treated with poultices and on account of which he was subsequently admitted into the Royal Infirmary. It was there found that the muscles of the abdomen were very rigid; pain was complained of over the epigastrium but peritonitis or rupture of any viscus was negatived. Mr. Caird noted that the angles of the mouth were drawn up, giving the appearance of a continuous smile. The muscles of the neck were found to be very hard and rigid. The finger, which had been crushed, was amputated as being the source of the poison, and large doses of antitoxin were administered. The period of onset of the symptoms was rather late in this case. The pulse soon rose to 120 and the temperature to 103° F. Chloral, bromide of potassium, and even chloroform were administered during the attacks of opisthotonos. Gradually the symptoms subsided and were entirely over by the seventh day and though the legs remained stiff for some time he had made a perfect recovery. Mr. Caird also showed a man after Operation for Coxa Vara. The symptoms first showed themselves in 1903 when pain was experienced and the leg began to shorten itself slowly and to become abducted. The femur was divided below the trochanteric line and now the patient had no limp and the foot was no longer everted. He could not, however, flex his leg owing to the fixity of the hip. In March he suffered from an acute attack of peritonitis which passed off, however, but in June a second attack necessitated the removal of the appendix vermiformis. He was admitted a few weeks ago suffering from acute abdominal pain which had come on suddenly. It appeared to be a case of rupture of a gastric ulcer but none was found on opening the abdomen. In the duodenum, however, a pin-head opening was found slowly exuding fluid. This was treated and the patient was now well.

Dr. W. G. AITCHISON ROBERTSON gave a demonstration of the Uhlenhuth Precipitin Serum Test for the recognition of human blood and showed its value in the differentiation of human blood from that of the ox, sheep, and pig. Its applicability to the recognition of blood stains as old as ten years was also demonstrated.

Mr. GEORGE G. HAMILTON of Liverpool read a paper on the Treatment of Fractured Patella by Transverse Wiring. He stated that four years ago he had spoken against the open method of wiring the patella because he did not then think that it was justifiable as a routine operation. With improved methods he found that he could open the knee-joint for other conditions without suppuration and as on this the whole question of wiring turned he now believed that the open method quickly performed was the best. In almost all of the methods employed in bringing the fragments together the vertical direction was employed. The following were the main features of the method used by Mr. Hamilton in 14 out of the 15 cases recorded. It was not desirable to operate at once, as by waiting a few days, time was given to prepare the skin properly. For cleansing the skin he used a turpentine mixture made by mixing and boiling six parts of green soap with three parts of glycerine, after which one-third of turpentine was added. For very dirty or very hairy skins "haarof" (a sulphide of barium) was of great use. It did not irritate, especially if mixed with a little oxide of zinc. The hands were cleansed with the turpentine mixture and sterilised in alcohol and iodide of mercury solution. Freshly boiled silk was used for ligatures. Gloves were worn by the operator and his assistant. A flap was rapidly turned up and it was not advisable to carry this above the middle of the upper fragment and the knife was then placed between the fragments so as to open the joint. The blood clot, which was always present, was removed with sterilised gauze. The fragments were freshened and trimmed with the knife only. Flushing of the joint was never practised. The mechanical drill of Down was invaluable as it was used to go transversely and superficially through soft and hard structures, after which medium silver wire was placed by means of the cannula. It was unnecessary to handle the fragments, they were merely steadied while being drilled; the whole operation, including the suturing of the skin, occupied about 16 minutes. In one case only had the silver wire sprung and that patient had bony union and was recently engaged during the whole day in carrying hundredweights of coal on his back up 70 steps. The advantages of the transverse method were that, as the wire was twisted, it acted like a splint to the fragments and compressing them tightly prevented any oozing of blood into the joint; that the wire could, if necessary, be easily removed by small incisions; and that there was no trouble from it in kneeling. A couple of silk sutures were used to bring the parapatellar ligamentous tissue over the front of the united fragments. In the 15 cases narrated the temperature after the first day remained normal. There had not been a single case of sepsis. Mr. Hamilton exhibited two patients; one of these was a lad who had both patellæ wired and who now ran along the roof-tops in his occupation as a plumber, and the other was a man who nine years ago fractured a patella and had it treated by plaster and then wore a Thomas's splint for 18 months. There was supposed to have been bony union but

now three-quarters of an inch separated the fragments. Mr. Hamilton recently wired his other patella and after one month he could do more with this limb than with the unwired one after 18 months. Mr. Hamilton's practice now was to remove the MacIntyre splint in ten days and to allow the patients out of bed in a fortnight, and they were encouraged to move the knee to a right angle in another fortnight.—Mr. H. ALEXIS THOMSON said that he had operated on six cases without accident but he did not agree that every case should be sutured. The important point was, how early could the patient get about, and wiring was not the only essential point of treatment. Neither did he agree that effusion of blood into the knee-joint led to stiffness of the joint and instanced the fact that in hæmophiliac patients blood effused into this joint underwent repeated absorption. It was not desirable to adopt any one method as a routine treatment.

Dr. WILLIAM RUSSELL read a paper entitled "The Relation of Angina Pectoris and Allied Conditions to an Arterio-cardiac Reflex having its Origin in the Abdomen." He traced the views held regarding the nature of angina pectoris from the time of Heberden to the present time. During the hundred years following the introduction of the term into medical nomenclature three views regarding its nature had been promulgated—namely, (1) that it was a convulsive action of the heart or a spasm of the heart; (2) that it was due to interference with the blood-supply of the heart; and (3) that it was a neuralgia of the heart. Then followed Nothnagel's angina pectoris vasomotoria, a term he had applied to cases in which he had seen vaso-motor spasm precede anginous seizures. About the same time came Lauder Brunton's discovery of the effect of nitrite of amyl in relieving the paroxysms. Dr. Russell then discussed the question of what has to be included under the term angina pectoris and showed that from the time of Parry mild cases of angina had been recognised which did not present the extreme pain or the sense of impending dissolution which characterised the first recorded cases. In order to distinguish these less grave cases various terms had been introduced, such as pseudo-angina, angina notha, false angina, and functional angina. All these terms were open to objection but nothing more than what was indicated was meant by the terms when they were first introduced. After this historical summary Dr. Russell turned to the constructive side of his communication and asked the attention of the society to certain vaso-motor phenomena. He drew attention to an arterial reflex having its origin in the abdomen. After the ingestion of food there followed a hyperæmia of the splanchnic area in the abdomen and this was followed by a constriction of the systemic arteries. This he held was a normal reflex process. If the meal was a large and stimulating one, or included alcoholic liquors, the reflex was more pronounced and associated with marked raising of the blood pressure. Neither this reflex nor its exaggeration was to be regarded as a "neurosis." It led to confusion of thought to use the term in this sense. In a variety of abdominal conditions, including the kind and the quantity of food, &c., this reflex was influenced in the direction of being intensified. The intensification or persistence of the consequent arterial contraction—which he had called hypertonus or hypertonic contraction—was the great cause of arterio sclerosis, in the sense in which he had used that term in previous communications. The sclerosed vessels not only retained their power of hypertonic contraction but were very readily put into this state, a fact referred to by Professor Pal in his recent work. Dr. Russell then proceeded to show by means of illustrative cases that an exaggeration of this reflex was often the determining cause of a paroxysm of angina and that the origin of the hypersensitiveness of this reflex was in the abdomen. Palpation of a hyperæsthetic epigastrium might induce a paroxysm. Mental emotion of a slight kind passed on to the hypersensitive vaso-motor centre induced an attack; physical effort, in sending a normal stimulus to this same hypersensitive centre, induced an attack. Even tobacco angina only occurred when there was this same hypertonic contraction of the arteries. He then proceeded to formulate what he considered to be the clinical pathology of angina pectoris. The term was applied to a group of symptoms. There might or might not be a morbid anatomy. When present it was very diverse in character. The explanation of the phenomena of angina pectoris was to be found in tobacco angina with a normal heart. There was the sense of constriction of the heart with hypertonic contraction of the systemic arteries and also of the coronary arteries. As the contraction of the arteries relaxed the heart symptom disappeared. The sense of heart constriction was a mild phase of the *dolor pectoris*. It resulted from a sudden embarrassment of the myocardium. This was the same thing as Mackenzie's "impairment of the function of contractility"; this was what Parry meant by "syncope"; this was Rosenbach's stenocardia. This sudden embarrassment resulted from arterial contraction in the vast majority of cases, while the condition of the coronary arteries and of the myocardium determined the gravity of the individual case. The *angor animi* was common to all sudden heart embarrassments which were short of being immediately fatal. He laid emphasis upon the fact that this hypersensitiveness of a normal reflex was determined by conditions referable to the alimentary system; that these were attributable to the prolonged use, in excess, of certain foods, of alcohol or of wines; to the absorption of the products of their digestion in excess; or to the absorption of more definitely toxic substances from the alimentary system. Even in the most grave forms of angina he showed that the hypersensitiveness of the reflex referred to could be restrained or controlled by rigidly acting upon this view, and that this was the only means by which the reflex could be permanently controlled. He suggested that all cases might be classified as cases of angina pectoris major or angina pectoris minor, the former term being confined to cases where it was believed there were permanent changes in the heart or its arteries.

ROYAL ACADEMY OF MEDICINE IN IRELAND: SECTION OF SURGERY.—A meeting of this section was held on Dec. 1st, Mr. T. E. Gordon being in the chair.—Mr. Gunn read a paper on the Surgical Treatment of Tuberculous Disease of the Seminal Tract. Referring to those cases in which both testes were affected, and where the seminal vesicles or prostate were also diseased, he showed that the course of the disease was not, as a rule, checked by the removal of the testes, but sooner or later the bladder became infected, and from it the kidneys, and this ended in the death of the patient. Mr. Gunn advocated the complete removal of the disease and mentioned two cases in which he had removed both testicles, both cords, both seminal vesicles, and the prostate through inguinal and perineal incisions. In both cases the patient was up on the eighth day, with complete control over his bladder. In neither case had there been any sign of the disease recurring. The bladder was in each case examined with a cystoscope before the operation in order to be certain that there was no tuberculous infection there. He first exposed the vas deferens by means of an inguinal incision and traced it into the pelvis up to the point at which it was crossed by the ureter. The second stage of the operation consisted in exposing the prostate, as in perineal prostatectomy, and working backwards towards the seminal vesicle and terminal portion of the vas deferens. If the latter was diseased its complete removal should be attempted but if it appeared healthy the perineal stage of the operation could be deferred to a later date.—Mr. Edward Taylor said that he believed that the usual treatment of tuberculous disease of the testis by operation was very imperfect a much more extensive procedure being generally requisite. It was almost certain that by the time the disease was fully manifest in the epididymis more distant parts of the seminal tract were also implicated, although the fact might be difficult to prove by the ordinary methods of examination.—Dr. C. A. K. Ball alluded to the fact that cases were occasionally observed in which tuberculous disease of the seminal tract seemed to stand still for a considerable time. He had known of one case in which the disease had involved the deep urethra and had ultimately healed up, leaving a stricture.—Dr. W. S. Haughton and Dr. R. J. Rowlette contributed a paper on Sterilisation of the Hands. Dr. Haughton stated that during the past 12 months he had experimented with a "soap-hot-water-sublimate" method, tested on the hands of three different persons—namely, the surgeon, the assistant, and the nurse. The method consisted of scrubbing the hands for 20 minutes with soap, hot water, and a boiled nail-brush, followed by immersion for one or two minutes in an aqueous solution of corrosive sublimate of strength 1 in 500, which was rinsed off in normal saline solution, and the hands were then put into indiarubber gloves which had been boiled for ten minutes. The skin of the hands, the nails, and the gloves were tested before, during, and at the end of the operation. Some 80 square inches were searched thoroughly

by sterile swabs on each pair of hands and the nails (all ten) were probed deeply with stout platinum wire before the inoculation of the tubes. This test, it was claimed, was more stringent than any that had been hitherto put forward and the results of culture proved that absolute sterilisation of the skin by this method was difficult or impossible, and when obtained was not permanent—the recess under the nails being the most difficult to disinfect. The indiarubber gloves, tested at the end of the operation, only once gave a positive result—i.e., produced a culture. Some 200 tubes were examined. Air infection of the gloves during the operation was met by frequent washing in solution of corrosive sublimate of strength 1 in 500 which was at once rinsed off in normal saline solution to prevent entry of any chemical poison into the wound. These results indicated that indiarubber gloves were advisable. The clinical results in the year's work of cases operated on by this technique were highly satisfactory and showed a continuous series of aseptic healing of wounds.—Dr. R. A. Stoney mentioned the results of a method of sterilisation in which, after washing in soap and hot water, the hands were steeped for two minutes in a mixture containing 60 per cent. of alcohol, 6 per cent. of strong hydrochloric acid, and corrosive sublimate in the proportion of 1 in 1200. In no case did any growth of cocci occur in the cultures which were made, but on four occasions out of 120 a growth of a spore-bearing bacillus was obtained. As this was a non-pathogenic microbe the results might be considered perfect from a practical point of view. The conclusions drawn were as follows: (1) it was possible to sterilise, not only the surface of the hands but also the deeper layers, and therefore the wearing of gloves was not a necessity; (2) the practical demonstration of anatomy and surgery on the dead body did not increase the difficulty of sterilising the hands; and (3) owing to the variation in the tolerance of the skin of different persons to the action of antiseptics it might be impossible to sterilise the hands and then the wearing of gloves while operating became obligatory. As a corollary of this it followed that surgeons should experiment for themselves in order to find a suitable and trustworthy method of preparing their own hands for operation.

FORFARSHIRE MEDICAL ASSOCIATION. — A meeting of this society was held in Dundee on Dec. 7th, Dr. R. Sinclair, the President, being in the chair.—Dr. R. C. Buist exhibited two specimens of Cancer of the Uterus with disease of the appendages which showed several points of interest in the natural history of the disease. The patient from whom the first specimen was obtained had no idea until three weeks previously to her admission to hospital that she suffered from so serious a malady, her only symptom being profuse hæmorrhages of a few weeks' duration. Complete extirpation of the uterus with the appendages was performed. The operation was very difficult owing to extensive bladder adhesions. Along with advanced cancer of the cervix there were present a hydrosalpinx and an ovarian cyst. In the second case the symptoms had existed for five months, yet the uterus was freely moveable and the operation was easy. The same conditions of cervical cancer and ovarian cyst and hydrosalpinx were present, the various conditions thus illustrating each stage of cell degeneration.—Dr. George F. Whyte described a case of Belladonna Poisoning. He said that a few months ago he was called to an urgent case and found a woman delirious, excited, and talkative. There was no history of alcoholism. She complained of dryness of the throat and mouth; the pupils were dilated and did not react to light. Three days previously for the relief of a pain in her back she had applied a porous plaster. This caused very great irritation of the skin, and scratching in the neighbourhood of the plaster had allowed of rapid absorption of the incorporated material, evidently belladonna. Immediate removal of the plaster and one-sixth of a grain of morphine repeated occasionally gave complete relief from the distressing symptoms.—Dr. Buist and Mr. A. Don mentioned having seen similar symptoms after the application of belladonna plasters to the breasts.—Dr. J. Mackie Whyte reported an unusual case of Suppurative Hepatitis. The patient, a man, 65 years of age, was admitted to the Royal Infirmary after an illness of three weeks' duration which began with a chill and was followed by frequent attacks of shivering. His previous history was uneventful. He was a stout, well-nourished man. During the nine days he was in hospital previously to his death he had 18 rigors coming at irregular intervals and lasting from 15 to 20 minutes, and on one occasion for as long as 50 minutes. The temperature was remittent, from 96° to 106° F. He became delirious after the rigors and had incontinence of urine and fæces. The tongue was dry and coated and apart from a slight bronchitis which developed a few days after admission careful and frequent examinations could find nothing definite. The liver was not tender or enlarged but a slight jaundice developed shortly before death. Examination of the blood revealed the presence of no organisms. The symptoms clearly indicated a suppurative condition but the absence of distinctive signs made it difficult to locate the exact site until the jaundice, when it was too late, pointed to the liver. He died from exhaustion. A hurried post-mortem examination was made. The thoracic cavity showed nothing of any consequence. The abdominal cavity contained a few ounces of dark, muddy, bad-smelling fluid. In the region of the sigmoid flexure was observed a small tumour which on closer inspection was seen to be composed of a mass of inflammatory material surrounding a small diverticulum from the bowel. In this there was a fæcal concretion which had set up the inflammatory process, causing a local peritonitis. The diverticulum was perforated in two places and adhesions had formed with the surrounding parts, the condition being best described as "diverticulitis." The liver weighed 4 pounds 7 ounces, was of a dark slate colour, and very soft. It was studded all over with small abscesses, the left lobe being more affected than the right. It was thus evident that the liver had been infected from the "diverticulitis" through the portal circulation, a condition of portal pyæmia having existed. This, of course, accounted for the negative examination of the blood, the liver having acted as a barrier to the passage of pyogenetic organisms into the general circulation. Dr. Mackie Whyte then compared the case with the conditions of hepatic suppuration in general pyæmia and also of tropical abscess.—A discussion on the case followed.—Dr. G. Halley read notes upon two cases of Sciatica which he had treated by isolating from adhesions and stretching the sciatic, internal popliteal, and posterior tibial nerves, with excellent results. Dr. Halley in his remarks dealt with the importance of removing the adhesions round the nerves, and in certain cases in stretching the branches as well as the main nerve trunk.—In the discussion that followed objection was taken to the fact that the cases were acute and had little or no previous medical treatment.—In reply, Dr. Halley said that he operated upon the first case although it was of but two weeks' duration because the patient had previously been affected in the same side, indicating the possibility of adhesions being the cause of the severity of the pain complained of. He did not consider it necessary or advisable to open the nerve sheath.

MIDLAND MEDICAL SOCIETY.—A meeting of this society was held on Dec. 6th, Mr. J. Quirke, the President, being in the chair.—Dr. Otto J. Kauffmann showed a man, aged 25 years, suffering from Double and Equal Optic Atrophy and Great Impairment of Vision unassociated with any other signs or symptoms. His sight had been slowly failing for seven or eight years but until three years ago this had not given him much trouble. Since then, however, failure had been much more rapid and for the last three months the progressive loss of vision had been very quick. Syphilis was excluded and there was positively no family history of any similar affection or of any nervous disease in his parents or among his numerous brothers and sisters. Full examination showed that the atrophy was not consecutive to neuritis; that there was double, though not quite equal, temporal hemianopia; and that the nasal field was likewise somewhat narrowed peripherally on each side. The case was regarded as one of pressure on the chiasma with some consequent degeneration of the outer nerve bundles of that commissure. It was thought that possibly distension of the sphenoidal sinuses from chronic suppuration or from a hydropic condition might account for the phenomena and an exploration of these cavities had been proposed to the patient in the hope of preserving what limited vision still remained but he had rejected the suggestion.—Dr. F. W. Sydenham showed a patient suffering from Cerebral Tumour.—Dr. A. Douglas Heath showed a boy, three years of age, in whom a Circinate and Diffuse Erythematous Eruption had been present for two months. Five months previously he had been bitten on the right forearm by a rat; the wound had healed but suppurated three weeks subsequently and after being dressed surgically for another week finally healed and had not

broken down again. About a month after this an enlarged gland was noticed in the right axilla, which, after increasing in size for a fortnight and being painful, began slowly to subside but was still slightly enlarged. The erythema started on the right shoulder seven weeks after the bite and soon showed itself on the face and about the hairy scalp. On the forehead it took the form of rings which could be seen for weeks and only enlarged slowly. The temperature remained normal throughout. Dr. Heath referred to two cases described by Dr. Alfred H. Carter at the Birmingham branch of the British Medical Association in which similar erythematous eruptions had been observed some weeks after the patient had been bitten.—Dr. P. J. Hay showed a case of Persistent Thyro-glossal Duct.—Mr. A. W. Nuthall showed a case of Thrombosis of the Left Subclavian and Right Femoral Arteries. The patient was a woman, aged 42 years, who, on the fourteenth day after the commencement of what was thought to be an attack of influenza, developed a rapidly occurring dry gangrene of the left hand and forearm. The limb was amputated and at the operation the brachial artery was found to be thrombosed. Two days after the operation the right foot and leg became cold and pulseless. Pulsation could, however, be felt in the common femoral artery. The circulation in the limb was gradually restored. There were ill-marked signs of pneumonia but there was no evidence of endocarditis. Mr. Nuthall suggested that the condition was one of embolism of the subclavian and femoral arteries originating from atheromatous patches in the aorta. A section of the brachial artery showed the presence of considerable endarteritis.—Mr. H. G. Barling showed several specimens of kidneys removed by nephrectomy.

HUNTERIAN SOCIETY.—A meeting of this society was held on Dec. 13th, Dr. F. J. Smith, the President, being in the chair.—Mr. J. Tregelles Fox read a paper on the Human Alimentary Tract, with special reference to Constipation. He divided the tract into five retort-shaped parts—namely: (1) the pharynx and œsophagus; (2) the stomach; (3) the duodenum, jejunum, and ileum; (4) the cæcum, ascending, transverse, and descending colon; and (5) the sigmoid flexure and rectum. Each of these parts except the fourth is closed by a valve. Each "retort" is responsible for "ecbolismata," which Mr. Fox compared to discharges of a gun, quite apart from peristaltic movements. He insisted on the point that the rectum was not a receptacle; it should be merely a passage containing just enough gas to enable it to act as an air-cushion to afford comfortable support to the uterus or prostate. There should be a diurnal revolution, alternate conditions of diastole and systole occurring in all the five parts of the alimentary canal.—Mr. Hugh Lett read a paper on the Surgical Treatment of Colitis. He discussed the relative merits of the four following operations. 1. Right inguinal colotomy with establishment of an artificial anus on the right side and subsequent irrigation of the colon. The disadvantages of this method were (*a*) absence of control over the motions, (*b*) irritation of the skin from the action of liquid fæces, and (*c*) the necessity of a second operation to close the artificial anus. 2. Ileo-sigmoidostomy, or the short-circuiting operation. The advantages of this method were that there was no artificial anus and therefore there was no necessity for a second operation. 3. Carden-Gibson valvular cæcostomy. After this operation irrigation of the colon could be carried out freely; there was no escape of fæces, and the valvular opening tended to close spontaneously. 4. Appendicostomy. If the appendix was healthy this operation was easy and safe and the opening could be closed without difficulty, but only a small tube could be passed for irrigating purposes; after appendicitis the operation might be one of great difficulty. Mr. Lett emphasised the fact that mucous colitis often came to an end when the constipation was recovered from.—Mr. Hugh M. Rigby said that in his opinion ileo-sigmoidostomy had a great future before it. He described three cases in which he had performed this operation with success on account of obstruction. He drew attention to cases which presented all the signs of acute obstruction, although there was no mechanical obstruction to the passage of fæces along the large intestine. In these cases of inhibition of the action of the large intestine operative treatment seemed to be of little use.—Dr. Ernst Michels said that he had performed the operation of ileo-colostomy in three or four cases and had not seen diarrhœa following it. He had had great difficulty in closing the artificial anus in the case of right-sided colotomy on account of contraction of the excluded part of the gut.—The President, commenting on the views propounded by Mr. Tregelles Fox, said that he questioned their value as material helps in practice. He disputed the value of rest for the colon and the correctness of the generally accepted explanation of the etiology of stercoral ulcers. Typhoid ulcers heal without rest in spite of being constantly bathed in fæces. He referred to two cases of colitis under his own care which had improved steadily after appendicostomy. He had found that irrigation with cyllin caused great irritation to the colon.

BRITISH GYNÆCOLOGICAL SOCIETY.—A meeting of this society was held on Dec. 14th, Dr. William Alexander, the President, being in the chair.—Dr. Richard T. Smith read notes of a case of Associated Pyosalpinx and Appendicitis and showed the specimen, consisting of a dilated right Fallopian tube, a perforated appendix, and a small concretion which escaped during the operation. There was a history of appendicitis, associated with pregnancy five years previously, since which time dysmenorrhœa of increasing severity had existed. The patient complained of pain in the right iliac region, this pain being much increased on movement. The right iliac region was occupied by a hard tender mass extending half-way to the umbilicus and down into the pelvis closely contiguous to the uterus. An incision was made along the right semilunar line. The lower right quadrant of the abdomen contained a mass of inflamed hard tissue with dense adhesions. The Fallopian tube was dissected out without rupture. Between the appendix and the tube an abscess existed containing two or three drachms of pus which was absorbed by gauze. The appendix was behind the tumour and on removing it a perforation was found and near it the concretion. No drainage was used. The abdominal wound healed by the tenth day and convalescence was uneventful.—Dr. C. H. F. Routh mentioned that on opening the abdomen in a case which had been under his care an abscess was found on the right side containing fœtid pus and several intestinal sloughs. Next day a slough containing the cæcum was found in the wound. The patient was well in three weeks.—Dr. F. A. Purcell read notes of a case of broad ligament cyst removed by enucleation where the left ureter was injured during the operation. A subsequent operation showed a fistula on the anterior surface of the left ureter imbedded in cicatricial tissue. The ureter was brought out in the loin as the remaining portion was too short to be implanted in the bladder. The peritoneum was united by a continuous catgut suture and the wall by the method described by Bishop.—In the adjourned discussion on Dr. E. Smallwood Savage's paper on Hæmatoma of the Ovary, Professor J. W. Taylor said that the term lutein cysts had not been applied to the condition described, and correctly too, as the lutein cells were normally present and not likely to cause these tumours. There were four varieties of these blood tumours. One was associated with twisted pedicle and large myomata, another was associated with blood diseases, another was associated with salpingitis where inflammatory adhesions prevented the rupture of the follicles, and the last variety was the one described in the paper, occurring in strong, well-nourished, young or middle-aged women, the prominent symptoms being dysmenorrhœa and acute pain with increase of the growth. The ovaries were found to be changed into blood sacs with inelastic capsules and dense adhesions. The contents consisted of blood altered so as to be thick and tarry and bacteriologically sterile.—Dr. R. Hugh Hodgson said that in his opinion the condition was one of physiological excess and the rupture of the follicles was due to chemical changes.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—A meeting of this society was held in Manchester on Dec. 15th, Dr. D. Lloyd Roberts, the President, being in the chair.—Dr. W. Walter showed a Fibromyoma removed by supravaginal hysterectomy from a patient, aged 60 years, because it was rapidly growing although the menopause had occurred 20 years previously.—Mr. A. J. Rodocanachi showed External Genitals removed on account of their pre-cancerous condition. The skin presented the appearances characteristic of kraurosis while inflammatory infiltration caused considerable tumefaction of the subcutaneous tissue.—Dr. W. K. Walls and Dr. H. Clifford showed Uterine Dilators graduated according to the English catheter gauge so that the tip of each had the same measurement as the stem of the next one inch from the point.—Dr. W. E. Fothergill showed four Fibromyomatous

Uteri (one of them pregnant and another removed one week after labour) which had been impacted in the pelvis and had been removed by supravaginal hysterectomy.—The President recommended the use of catgut in vaginal hysterectomy, showing the uterus from a case in which the broad ligaments were secured in the vaginal vault by the sutures closing the vaginal wound. By this means all sloughing was avoided, two light packings and a little douching being the only after-treatment required, while healing occurred by first intention.—The President also showed a large Fibroid of the Cervix enucleated through a vaginal incision and urged the claims of enucleation as the ideal treatment for uterine fibroids.—Dr. Walls mentioned a case of Rupture of the Uterus in which abdominal hysterectomy was followed by recovery.—Sir William J. Sinclair regretted that para-vaginal section advocated by Schuchardt in 1901 was not now used as often as it should be. In cases of cancer of the uterus advanced but still operable it was the best operation. It raised the percentage of operable cases and gave better remote results than vaginal hysterectomy without exposing the patient to increased risk. It had great advantages over abdominal hysterectomy with pelvic dissection which had a very high mortality without a proportionate improvement in the remote results. Paravaginal section was thus the best operation in advanced uterine cancer; but further, it was the only operation at all suitable for certain cases of another kind. Of these four examples were given. Two were cases of atresia uteri with hæmatometra and hæmatosalpinx which caused excessive pain and endangered life. Both ovaries had been removed in one case and one ovary in the other case by other operators. In a third case the patient, aged 55 years, had a sloughing intra-uterine growth, while the fourth patient was aged 40 years and had a narrow vagina and a fibrosed uterus which had caused excessive hæmorrhage. In these four cases the affected organs had been safely and simply removed by the help of the paravaginal incision.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.—A meeting of this society was held on Dec. 11th, Professor R. Muir, the President, being in the chair.—Dr. Alfred A. Young showed a man, aged 23 years, with a Large and slightly Ulcerated Cancerous Tumour of the Scalp, with secondary nodules around it and with enlarged and hard lymphatic glands behind the ear and along the border of the sterno-mastoid muscle. A small tumour, which was supposed to be a wen, was removed in the beginning of the year but the wound never healed satisfactorily. Six months ago a fungating mass was removed and shortly afterwards hard nodules appeared in the scar and in the neck and grew rapidly. The microscopic characters of the tumour resembled a rodent ulcer but the cells were of larger size and appeared to be derived from the deeper layers of the skin or from the hair follicles.—Dr. T. K. Monro read notes of a case of Subacute Spinal Muscular Atrophy. The patient was a man, aged 56 years, who had been in failing health for about a year previously to his admission to hospital. On admission he suffered from loss of power in his legs, want of control over the bladder and rectum, and marked atrophy of the muscles of the lower limbs. There was loss of knee reflexes but no loss of sensation. The power of the upper limbs was diminished but by no means lost. The illness was of a progressive character and after three months' residence it terminated in a low form of pneumonia. The changes in the spinal cord were investigated by Dr. J. W. Findlay who showed a number of sections from the case. The chief features of the histological examination were as follows: a great scarcity of the motor nerve cells in the lumbar and sacral segments; a number of the remaining ganglionic cells showed degenerative changes; the anterior nerve roots in the same regions showed marked atrophy and evidences of degeneration in the pyramidal tracts were also present. The muscles of the thigh were also examined and showed practically complete replacement by fatty and connective tissue.—Dr. J. Stoddart Barr read notes of a fatal case of Septic Thrombosis of the Lateral Sinus, secondary to chronic purulent otitis media and complicated with septic infarctions in the lung. The patient was a girl, aged seven years, who suffered from a continuous discharge from the ear of a year's duration, dating from an attack of whooping-cough. At the date of admission to hospital the patient was suffering in addition from headache and severe rigors and the temperature ranged from normal to 104° F. The radical mastoid operation was performed; the sigmoid sinus was explored and found thrombosed and this condition was also treated. The patient died two days later.—Dr. A. Logan Taylor gave a description of the Spirochæte Pallida and exhibited microscopical preparations of the same.

DERMATOLOGICAL SOCIETY OF LONDON.—A meeting of this society was held on Dec. 13th, Dr. H. Radcliffe Crocker being in the chair.—Dr. Arthur Whitfield showed a case of Psoriasis Vulgaris in a woman, aged 45 years, in whom on one patch of psoriasis a rodent ulcer had developed and persisted for five years. The edge of the ulcer was not of the usual firm consistence found in rodent ulcer and the diagnosis had been at first rather hesitating, but a microscopic section from the ulcer showed unmistakeable characters of rodent ulcer. The position—on the summit of the shoulder—was also very uncommon. The woman had had ordinary psoriasis for many years before the rodent ulcer had shown itself.—Mr. Percy W. G. Sargent, introduced by Dr. S. E. Dore, showed a woman, aged 31 years, the subject of Psoriasis since her childhood, who had developed an epithelioma upon a patch of psoriasis on the right thigh. The growth was operated upon ten months after its appearance and at that time had attained the size of a small tea-saucer. The inguinal lymphatic glands were also characteristically enlarged. A portion of the growth, examined microscopically, showed the presence of a squamous-celled carcinoma. The malignant excrescence was removed by operation and a Thiersch graft successfully applied. It was interesting to note that psoriasis had occurred upon the grafted portion. No recurrence of the malignant growth had taken place, the operation having been performed ten months ago. A photograph of the condition before operation was also shown.—Dr. J. M. H. Macleod showed a child with Multiple Pigmented Nævi of the Scalp. The history given was curious in that it was said that the pigmented nævi had commenced as vascular nævi.—Dr. H. G. Adamson showed a child with a Linear Unilateral Verrucose Nævus on the left side of the chest (running across the thorax at the level of the nipple to the arm) which was described as having commenced at the age of three years, the child now being aged ten years.—Dr. J. H. Sequeira showed a little girl with Lupus of the Nose in whom the tongue had become secondarily affected with tuberculous disease.

WIGAN MEDICAL SOCIETY.—A meeting of this society was held on Dec. 7th, Dr. J. Blair, the President, being in the chair.—A paper was read by Dr. R. Prosser White entitled "A Critical *Résumé* of our Knowledge of a Common Cold." The following is a short synopsis: (1) popular superstitions upon the subject and professional acquiescence therein; (2) catarrhal fever can only arise from a pre-existing source; (3) its only method of invasion is through the respiratory tract; (4) the difficulty and importance of carefully differentiating catarrhal fever from other conditions with which it may be easily mistaken, especially influenza, vaso-motor catarrh, nasal diphtheria, &c.; (5) the necessity there is in certain cases of regarding catarrhal fever as a serious and dangerous infectious disease; (6) the extraordinary difference of opinion existing amongst the highest medical authorities upon the question of the influence of variation in temperature, wet feet, "*et hoc genus*," as a cause of disease in general; (7) the striking and useful testimony of explorers, travellers, and soldiers upon this point; and (8) the clinical evidence of infection as shown in household epidemics.—A discussion followed.—Mr. W. Mitchell Roocroft showed two Uteri removed by abdominal hysterectomy. In each case the patient recovered.—Mr. H. E. Batten showed two Large Vesical Calculi, one removed post mortem and the other by suprapubic cystotomy.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—The first clinical meeting of the session was held on Dec. 15th, the President, Mr. Edward Ward, being in the chair.—The President showed a case of Sarcoma of the Scalp, the patient being a man, aged 62 years. He first noticed "heat spots" on the top of his head in June, 1904. These were diagnosed as wens and an attempt was made to remove them. One of the wens never quite healed and the present growth developed in its neighbourhood. Rapid improvement had taken place under treatment by the x rays.—Dr. T. Churton showed a case of diabetic stupor in a girl, aged 17 years, which had greatly improved under intravenous injections of a solution of sodium bicarbonate.—Mr. Brown showed amongst other cases

a case of Ruptured Urethra complicated by Profuse Hæmorrhage and Arthritis and a case of Fractured Pelvis.—Dr. A. Mantle showed two cases of chronic disease, one a case of Syringomyelia and another one of Disseminated Sclerosis.—Mr. J. Gardner Holmes and Dr. E. F. Trevelyan also showed a number of interesting cases of Nervous Disease, one of which was a case of Spastic Paraplegia Secondary to Vertebral Caries in a child, aged nine years, which was showing marked improvement.—Mr. H. Littlewood showed a series of surgical cases among which was a man suffering from Dilated Stomach who had eructations of inflammable gas and in whom posterior gastro-enterostomy had been performed on Nov. 6th.—Dr. T. Wardrop Griffith, among other cases, showed three of Peritoneal Effusion, one in a girl, aged 17 years, one in a woman, aged 26 years, and one in a child, aged one year and ten months.—Mr. R. Lawford Knaggs showed a case of Ectopia Vesicæ in which he had performed the operation of implanting the ureters into the rectum. The boy is now able to attend school and does not wet himself, but at night urine and fæces frequently come away in his sleep.—Other cases were shown by Mr. W. G. Scarth, Dr. W. H. M. Telling, with Mr. J. F. Dobson, Dr. Adolph Bronner, Mr. A. L. Whitehead, and Mr. H. Secker Walker.

ÆSCULAPIAN SOCIETY.—A meeting of this society was held on Dec. 15th, Mr. W. Campbell M'Donnell, the President, being in the chair.—Dr. L. Durno read notes of a case of Phagedænic Stomatitis (Cancrum Oris) in an adult. A girl, aged 24 years, for five weeks had dryness of the throat, spongy and bleeding gums, and greatly enlarged submaxillary glands. An abscess in the mouth burst and she apparently improved. A few days later she got rapidly worse and in her mouth were two large sloughs extending behind three decayed teeth. The gums were swollen, half of the hard palate was bare, and the stench was putrid; the cheek was not affected. Antistreptococcic serum was injected and the palate was scraped but the patient died on the same day.—Dr. Durno also read notes of a case of Relapsing Desquamation following Tonsillitis in a Man. This had occurred five times but only as regards the hands.—Dr. B. G. Morison read notes of a case of Umbilical Hæmorrhage and Asthenia in an infant associated with hæmorrhage into the suprarenal gland. Nine days after birth the patient, an eight and a half months' male child, seemed weak and refused the breast. Under treatment he improved but 19 days after birth was much worse, had petechiæ on the face, the head, the fingers, and the toes, and died on the same night. At the necropsy all the organs were healthy except the left suprarenal which was very dark, of a slaty-blue colour, and soft and friable. When cut into *in situ* it collapsed at once, shedding its fluid contents, and appeared as if practically converted into a blood cyst. Dr. Morison was more inclined to think that hæmorrhagic dyscrasia existed *ab initio* and that the adrenal blood cyst was formed later than that the cyst was primary and causal by interfering with the tonic and hæmostatic action of this body.—Dr. D. Ross showed a case of Congenital Ichthyosis in a boy, aged seven years.

SOUTH-WEST LONDON MEDICAL SOCIETY.—A meeting of this society was held on Dec. 13th, Dr. M. Mackintosh, the President, being in the chair.—Mr. Cecil R. C. Lyster gave an address on Some Points in Connexion with the Diagnosis and Treatment of Disease by Heat, Light, and Electricity. He first reviewed the method of treatment by heat and light. Referring to the Finsen light, it was pointed out that it was the ultra-violet rays which were destructive to the tubercle bacilli and other pathogenic organisms. Mr. Lyster regarded the x rays as superior to Finsen light in the treatment of tuberculous ulceration. There was no pain and the treatment was not so prolonged. As a diagnostic factor x rays were valuable in localisation of foreign bodies, fractures and dislocations, calculi, tuberculous disease of the lungs, aneurysm, mediastinal growths, and spinal caries. The x rays were also useful in treatment. Ringworm could be cured in from two to four applications. Acne yielded to x rays. Cancer was not cured but the rays kept the disease in abeyance and the growth became converted into a hard fibrous carcinoma. If operation was possible the x ray treatment did not arise. If inoperable the x rays checked ulceration, eased pain, and prolonged life. It was a good treatment until a better could be found. Tuberculous ulceration yielded to x rays. Warts and papillomata could be got rid of but it was undesirable to treat them for fear of their becoming malignant. The effect of x rays on the spleen in connexion with leukæmia was also referred to. Mr. Lyster finally alluded to treatment of disease by electricity, static, galvanic, and faradic, and high-frequency currents.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Dec. 13th, Mr. John Dacre, the President, being in the chair.—Dr. P. Watson Williams showed a case of Fibroma of the Left Vocal Cord and a patient operated on for Double Frontal Sinusitis and Maxillary Empyema.—Dr. Bertram M. H. Rogers read notes of a case of Acute Atrophy of the Liver and showed sections and lantern slides.—Dr. F. H. Edgeworth read a paper on a case of Acute Yellow Atrophy of the Liver and showed specimens and lantern slides.—These two papers were discussed by Dr. R. Shingleton Smith, Dr. J. M. Fortescue-Brickdale, Dr. Carey F. Coombs, and Dr. J. Michell Clarke.—Dr. E. C. Williams read notes of a case of Splenomegalic Hypertrophic Biliary Cirrhosis in a boy, aged six years, and showed the patient.—This case was discussed by Dr. Rogers, Dr. E. H. E. Stack, Dr. Fortescue-Brickdale, and Dr. Coombs.—Mr. T. Carwardine read short notes of the following cases: Perforated Duodenal Ulcer, Perforated Gastric Ulcer, and three successful Prostatectomies (with specimen).—The last subject was discussed by Dr. H. G. Kyle and Mr. H. F. Mole.

Reviews and Notices of Books.

Clinical Methods: a Guide to the Practical Study of Medicine. By ROBERT HUTCHISON, M.D. Edin., F.R.C.P. Lond., and HARRY RAINY, M.A., F.R.C.P. Edin. Third edition. London, Paris, New York, and Melbourne: Cassell and Co., Limited. 1905. Pp. 634. Price 10*s.* 6*d.*

THIS useful guide first appeared in 1897 and that it filled a gap was soon evident in the call for reprints in 1898, in 1899, and in 1900. A new edition was published in 1902 and was received with similar favour, to judge from the need of issuing three reprints. The authors have found that of late many important advances have been made which necessitate revision and inclusion of material. They are to be congratulated upon the deftness with which the task has been performed; the march of progress has been recorded but the harmony of the plan has not been disturbed; the new features have been duly subordinated, so that the result is not marred by the glaring appearance of new patches. In medical science there must always be a large substratum of eternal verities; the lines of advance proceed unequally in different directions, but if too much attention is concentrated upon these the eternal verities may be overlooked, or, at least, rendered less evident to the student for whose instruction the work has been compiled. In this edition the chapter on Clinical Bacteriology has been intrusted to Dr. James M. Beattie of the University of Edinburgh, to whom the authors express their great obligations. The book is profusely illustrated and much space in the text is thereby economised, since an adequate diagram often saves lengthy descriptions.

The Needs of Man: a Book of Suggestions. By W. WINSLOW HALL, M.D. Edin. London: Swan Sonnenschein and Co. 1905. Pp. 240. Price 3*s.* 6*d.* net.

THE articles comprised in this volume have already been printed in a magazine and in this reprint they are pleasantly separated by verses which bear upon the subject of each section and at the same time attempt to demonstrate how the Rondel evolved from the Triolet through the Rondeau into the modern Roundel. The author defines the needs of man as "those things without which he cannot attain to his complete development." In turn he speaks of the bodily, the mental, the moral, and the spiritual needs of man, and follows these with an "afterthought on woman." The first section is clearly that which concerns the medical profession most closely, the others may almost be regarded as lay

sermons. To the bodily needs we turn more hopefully; they here include food, cleanliness, coverings (*a*, clothes, *b*, bed, and *c*, house), land, work, rest, pain, and death. That controversial matter is in store is early indicated in the section on food, since we are here informed that fish, flesh, and fowl are "ethically objectionable" and that they are "slow poisons"—surely *very slow*, since numbers have lived to advanced ages in spite of their addiction to these slow poisons. In suggesting many reforms the author urges that each ought to be tested by its fitness to further the higher development of human nature and adds that any proposal that can survive this test will become a practicable reform. He advocates bare feet and sandals for this climate and for town life for six months of the year. It would be very instructive if he would follow his own advice in this respect for so much of the time as he found practicable and would then report on the practicability. Many of the reforms have similar difficulties and challenge argument but this is probably intentional. Dilemmas are confronted continually in dealing with the needs of man and some appear to be stated rather crudely in this volume. The section on the house fairly bristles with debateable matter, the most striking instance being the desire to select a house in early married life with a prudent and accurate forecast of the number of possible children. The house must be large enough for the ambitions of the parents and the family must in the future be made to fit the house. These examples are perhaps sufficient to show the general tendency of the argument. The book is well-intentioned and a spirit of piety pervades its pages but it is marred by just that dash of impracticable communistic thought which halts between advocating the coercive powers of municipalities and the sacred rights of individualism. The verses have a charm of their own; they are musical and correct in form and in many there is at least one new word of which the meaning is to be gathered from the context.

Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India: On Kala-azar, Malaria, and Malarial Cachexia. By Captain S. P. JAMES, I.M.S. New Series. No. 19. Calcutta: Office of the Superintendent of Government Printing, India. 1905. Pp. 47. 16 charts. Price R.1 as.4, or 1*s.* 11*d.*

THE disease kala-azar has been the subject of many Government commissions and has occasioned much medical controversy in past years. In this memoir Captain S. P. James first asks the question, "Is kala-azar a form of malarial fever?" He bases his conclusions on this point on the following lines of argument: Kala-azar is universally agreed to be a very severe and generally fatal disease; if it be a malarial fever it must therefore be a very severe fatal form occurring only in intensely malarious places; therefore, if we find kala-azar occurring in places but little malarious, and especially if it be prevalent where there is no malarial fever, it is not a form of the latter disease. Now, on this line of reasoning the author in this memoir shows the disease to be not malarious, for his investigations on the spot demonstrated places where kala-azar is prevalent and malarial fever is absent or rare, also that there are places where there is intense malaria but no kala-azar. And lastly, to clinch the argument against the malarious origin, Captain James shows that the natives who have lived all their lives on the same tea gardens are quite as liable to contract it as are new-comers. He has previously shown that in very malarious places the native of India acquires an immunity to malarial fever; hence a native born on a malarial tea estate should acquire immunity from malarial fever by the time adult age is reached, yet he then suffers from kala-azar; hence it is highly improbable that the latter is malarial in its nature.

The author in the next section of his monograph proceeds to show that the symptoms of malarial cachexia are very different from those of kala-azar. The temperature charts are very dissimilar and there is an absence of serious symptoms throughout the period during which the condition lasts, but especially so during the apyrexial periods. The concluding chapter is occupied with the results of examinations of the blood by the author. 68 cases of kala-azar were examined; of these the Leishman-Donovan parasites were found in 67 and evidence of malaria was present only in seven. These 68 cases had been diagnosed as kala-azar before the examinations of the blood were made, and the author has no doubt that they were true examples of the disease, and he believes therefore that we are justified in concluding that the disease known as kala-azar is always associated with the presence of the so-called Leishman-Donovan parasite. Doubtless other parasites may also be associated with the latter in different cases, such as the malarial, or ankylostomata, and so on.

Now is the Leishman-Donovan parasite *the cause* of the disease? Captain James answers this question by expressing the opinion that more conclusive proof than has yet been adduced is necessary to establish this fact completely. Certain facts require explanation before all doubt that this organism is the cause of the disease can be removed from our minds. The most important of these is the presence of the parasite, or one indistinguishable from it, in Oriental sore. The author has previously shown that this parasite occurs in this sore; that this sore and these parasites occur in the Punjab, where he was unable to find a single case of kala-azar; and, again, that kala-azar and this parasite occur in Assam, where he was unable to find a single case of Oriental sore. Hence he concludes that if the parasite in the two diseases is identical some other factor than the mere presence of the parasite in a district is necessary for the production of kala-azar. Finally, the author draws attention to the fact that the fever met with in kala-azar bears no relation whatever either to the number of parasites present in the spleen or to their condition.

In conclusion, we must congratulate Captain James on the critical acumen of his remarks. With regard to the etiological factor in this much debated disease, whilst by no means denying the great importance of the Leishman-Donovan parasite as its exciting factor, he states that caution is necessary before a final judgment is delivered and that more proof is yet required to clinch the conclusion.

The International Code of Zoological Nomenclature as applied to Medicine. By Dr. CH. WARDELL STILES, Chief of the Division of Zoology, Hygienic Laboratory, United States Public Health and Marine Hospital Service. Bulletin No. 24, Hygienic Laboratory, United States Public Health and Marine Hospital Service, Washington. Pp. 50.

IN response to the repeated requests of pathologists, bacteriologists, and zoologists in the United States Dr. Wardell Stiles has written an exposition of the International Code of Zoological Nomenclature as applied to medicine. The enormous number of species of the animal kingdom at present known has rendered it necessary for a uniform code of nomenclature to be adopted throughout the whole world. In a summary of the animal kingdom Ludwig (1886) estimated that there were then over 312,000 known species of animals. Ashmead (1895) estimated the number of known species of insects at 284,000, a total which exceeds the estimate made by Ludwig for all the arthropods. Howard (1905) estimates that the total number of known and unknown species of insects is between 3,500,000 and 4,000,000. According to Waterhouse, from 1880 to 1900 about 1150 new generic and supergeneric zoological names were proposed annually. Dr. Wardell Stiles is of opinion that the known genera and species of animals represent but a fraction, not over 10 to 20 per cent., of the zoological names which will come

into use during the next two or three centuries. There are extensive areas of the world which have not yet been zoologically explored and even in Europe, where work on systematic zoology has been in progress for one and a half centuries, hundreds of new genera and species are still becoming known. Considering the fact that we are only beginning to know the parasitic protozoa it is clear that our tasks in this respect are easy compared with the tremendous number of technical names which future generations will inherit. In these circumstances it behoves all zoologists to adopt one uniform system of nomenclature, in order to simplify knowledge and to prevent the science from becoming a mere chaos of words. The inception of an international code was due to Raphael Blanchard. His code was adopted by the First (1889, Paris) International Zoological Congress. At the subsequent congresses an international commission was appointed to study the International, Stricklandian, German, and other codes of nomenclature, to consider their points of similarity and difference, and to report progress. At the Fifth International Congress (1901, Berlin) the commission proposed the new International Code, which was adopted. A subcommittee was formed to edit the code in English, French, and German and this duty was completed at the Sixth Congress (Berne, 1904). The Berne Congress reorganised the permanent commission so that five of its 15 members retire every three years. The present British member of the commission is Dr. W. E. Hoyle of Manchester. Neither the commission nor the congress has any power to force zoologists and others to adopt the international rules. Every person is in a position to follow any code he desires but there is a growing tendency to adopt the International Code. Further, it is considered ethical to ignore names used contrary to this and to other standard codes. While not attempting to dictate to men of science what they shall or shall not do the commission submits a set of rules to the consideration of all workers in the hope that the universal use of them may lead to a uniformity in zoological nomenclature throughout the world. Passing now to the rules of the International Code space will not allow of more than a few references. The scientific names of animals must be either Latin or Latinised words. Thus, *Tænia algerien*, Redon, becomes *Tænia algeriana*, Pepper. Without ignoring justice the code is based upon practical rather than upon sentimental considerations and is intended to prevent an inconvenience being caused to the entire scientific world, rather than to protect an individual who works without a due regard to his responsibilities to future generations in respect of nomenclature. The law of priority is regarded as the keystone of nomenclature. By this law the valid name of a genus or species can be only that name under which it was first designated, provided that this name was published and accompanied by an indication, or a definition, or a description, and that the author has applied the principles of binary nomenclature. A generic or a specific name, once published, cannot be rejected, even by its author, because of inappropriateness—e.g., the names Polyadon, Apus. A name is not to be rejected because of tautology, as illustrated by the names *Trutta trutta*, *Apus apus apus*. It is suggested that the proposition of every new systematic group should be accompanied by a diagnosis, both individual and differential, of the said group in English, French, German, Italian, or in Latin. The description should state in what museum the type specimen has been deposited and the museum number of the specimen. The metric system of weights and measures and the centigrade thermometer of Celsius are adopted as standards. The micron 0·001 millimetre), represented by μ, is adopted as the unit of measure in microscopic work. The sign of multiplication is used for enlargement and the fraction for reduction. Thus × 50 indicates that the object is enlarged 50 times; $\frac{1}{50}$ indicates that it is reduced to one-fiftieth. Linear, surface, and cubic enlargement may be represented by × 50^1, × 50^2, × 50^3, respectively.

Counsels and Ideals from the Writings of William Osler. Collected by C. N. B. CAMAC. Oxford: Henry Frowde. 1905. Price 4*s.* net. Pp. 277.

As a rule we are not enamoured of the elegant extract class of book, except in such a case as that, for instance, of the Little Book of Life and Death, where a catena of extracts from various authors, all relating to the subject in hand, is brought together. But an anthology from the works of one writer almost invariably labours under two faults. First of all, it is nearly sure to omit the very pieces which are the special favourites of any particular reader who knows the whole of the writer's works; and secondly, although in some instances it may stimulate the reader who is unacquainted with the writer to go to the fountain-head for more, yet in too many instances, such is the tendency of this age of compressed drugs and columns of "news in brief," the casual reader is content with homœopathic doses of the writer and does not seek further. The publication of the book before us, however, is thoroughly justified because the writings of Professor Osler are for the most part not published in one or more volumes but are scattered abroad among journals and transactions and therefore are inaccessible to many readers. We need not here dwell upon the literary perfectness of Professor Osler's style or upon his catholicity of reading which enables him, as was said of another extraordinarily widely read writer, the late J. M. Neale, to pick up gold and gems from the treasures of his memory wherewith to deck his writings. But apart from that the shrewdness of the counsels given in this volume and the high ideals which are evident on every page make it a treasure for the thoughtful reader. On p. 5 is an excerpt from an essay on William Beaumont, the well-known inquirer into the physiology of digestion. Beaumont, by the way, is generally held to have been the first observer to watch the process of digestion in the stomach but we fear that this credit must be given to the Latin race and not to the Anglo-Saxon. True, the observers to whom we refer were not actuated by aught but idle curiosity, but they lived in the sixteenth century. In 1587 there was published at Antwerp an account of the cruelties practised by the Huguenots upon the Roman Catholics in France in the sixteenth century. A French translation from the Latin was published in 1588 in which we find the following simple experiment. "Dans la ville de Mancina, s'étant saisis d'un prêtre fort agé, il lui coupèrent des morceaux de chair, les firent rôtir sur le gril, et le contraignirent de les manger. Voulant voir comment il les digérait, ils lui ouvrirent l'estomac et mirent ainsi fin à ses jours."

The collection is full of sound sense and pithy apothegms and we select one for quotation which is quite as applicable on this side of the Atlantic as on that on which it was written. "I suppose, as a body, clergymen are better educated than any other, yet they are notorious supporters of all the nostrums and humbuggery with which the daily and religious papers abound; and I find that the further away they have wandered from the decrees of the Council of Trent, the more apt are they to be steeped in thaumaturgic and Galenical superstition."

It is much to be hoped that one day Professor Osler will publish another volume of his essays and addresses in continuation of Æquanimitas, but in the meantime the reader will find much food for thought as well as a singular charm in the perusal of the fragments brought together by Mr. Camac.

LIBRARY TABLE.

With John Bull and Jonathan. By JOHN MORGAN RICHARDS. London: T. Werner Laurie. 1905. Pp. 302. Price 16*s.* net.—The author of this discursive and interesting book is what may be called an advertising expert and his opinion of his work is "that advertising as a profession is the most fascinating form of speculation in existence." Mr. Richards commenced his commercial life as an employé of the firm of Demas Barnes and Co., New York, and the first long journey which he undertook for the firm was to California. It was a firm which had regal ideas of conducting business, for when Mr. Richards said that he would like to take his wife with him Mr. Barnes replied: "Engage passages for yourself and wife at our expense; we will pay all the cost." In 1867 Mr. Richards came to England, where he has lived more or less ever since. His criticisms upon our customs are well worth reading and in many ways taking to heart.

A Guide to the Administration of Ethyl Chloride. By G. A. H. BARTON, M.D. Brux. London: H. K. Lewis. 1905. Pp. 36. Price 1*s.* 6*d.*—This pamphlet gives a fair account of the present position of ethyl chloride amongst the general anæsthetics in common use. Dr. Barton has not, however, in our opinion, given sufficient attention to detail nor stated dogmatically enough the necessary proceedings involved, for his little work to guide the practice of anyone unfamiliar with the administration of ethyl chloride. He has done well in calling attention to the hitherto too little regarded danger of the drug and particularly in pointing out its unsuitability in cases of narrowing of the air passages, as, e.g., in cases of Ludwig's angina. Dr. Barton is responsible for a method of maintaining anæsthesia with ethyl chloride by means of a tube delivering the vapour into the mouth and of this he gives illustrations and a good account.

A Glossary of Botanic Terms. By BENJAMIN DAYDON JACKSON. Second edition, revised and enlarged. London: Duckworth and Co. Philadelphia: J. B. Lippincott Company. 1905. Pp. 370. Price 7*s.* 6*d.* net.—This is the second edition of a useful book which has been considerably enlarged since its first appearance in 1900. The list of words is founded on A. Gray's "Botanical Text-book," Lindley's "Glossary," and Henslow's "Dictionary," and to these terms others in use in various modern text-books and current literature have been added. The glossary includes about 16,000 terms. Technical terms employed in any branch of science include terms used in overlapping sciences, and in compiling a botanical dictionary the task of selecting words from zoology and chemistry and other branches of science is not wholly devoid of difficulty. The author, however, has performed his task, we think, with wise discretion. An appendix contains a list of signs and abbreviations, a note on the pronunciation of Latinised words, a discussion of the use of the terms "right" and "left," and a bibliography.

JOURNALS AND MAGAZINES.

The Practitioner.—The December issue of this periodical deals with a variety of subjects. On the surgical side an excellent contribution from Mr. W. H. Clayton-Greene illustrates many of the difficulties inherent in correct diagnosis of tumours of the breast and his remarks on the pathology and relationship of the various tumours are particularly reasonable and well stated. Dr. T. Gillman Moorhead writes upon the thymus gland and Dr. O. F. F. Grünbaum upon the diagnostic value of the leucocyte. The latter lays laudable stress upon the necessity for always bearing in mind the clinical aspects of the case when weighing the value of the evidence to be derived from examination of the blood in any particular instance. Dr. F. A. Bainbridge's interesting articles upon the pathology of dropsy are concluded by a consideration of the purely renal variety, and amongst other contributions Dr. J. J. Perkins reviews recent work on diseases of the respiratory tract.

MEDICINE AND THE LAW.

The Expenses of a Medical Witness in a Civil Trial.

IN the recent divorce case of Norman *v.* Norman and Mason a medical witness, Dr. A. H. Gerrard of Chiswick, declined to give evidence until he was paid the expenses which were admittedly then due to him. When he was called into the witness-box he stated that he had already been in attendance at the law courts for four days and had only received one guinea when served with the subpœna. The party which had subpœnaed him had no money to pay him with, and it was evident that he would receive nothing more unless the other side lost and so had to pay the costs of both. Dr. Gerrard eventually was allowed to leave the witness-box without giving his evidence, whatever it may have been, and he is to be congratulated upon having vindicated his position. The medical practitioner pursues his profession when he treats the ailments which assail the bodies of his patients and he is invited to go outside it when he is asked to assist in the adjustment of their matrimonial differences. The subpœna which compels his evidence in the Divorce Court or before any other legal tribunal inflicts upon him anxiety, loss of time, and, almost inevitably, pecuniary loss as well. It would be intolerable if any suitor indulging in the expensive luxury of litigation could enforce his attendance without any expectation of being able to pay even a nominal sum in respect of it and it would be doubly cruel if a medical witness could be placed in the position of having to admit in cross-examination that his only chance of any compensation whatever for his loss of time and money must depend upon the victory of the party calling him. The insinuations that would follow upon such an admission need not be dwelt upon. Members of the medical profession are not likely to allow their patients to suffer grievous injustice because they are poor, by refusing to give evidence for them, but, like the barrister who may return his fee out of charity, a medical man may fairly and reasonably claim to withhold gratuitous aid to the litigant according to his free will and discretion.

An Action for Nuisance arising out of Noise.

A recent decision of Mr. Justice Warrington in the Chancery Division has been upheld by the Court of Appeal and may some day come under the cognisance of the House of Lords when it assembles under the presidency of a new Lord Chancellor. The point raised is a curious one, as it involves the right of a person who comes to live in a naturally noisy neighbourhood to prevent an increase of the noise arising after his arrival so as to interfere with his enjoyment of such quiet as may be said to have existed before. In other words, the court was asked to say, and did say, that a person may "come to a nuisance" and then may complain if it is substantially increased. The plaintiff, to put his story shortly, lived and carried on business in the midst of newspaper offices and printing works, at Gough-square, Fleet-street; new premises near to his house were opened for printing, where business was carried on by day and by night and it was of the noise of the machinery thus employed that he complained. The judge and the Court of Appeal have found in his favour, Lord Justice Cozens Hardy putting the case on this point thus. "It does not follow," said his lordship, "that because I live, say, in the manufacturing part of Sheffield I cannot complain if a steam hammer is introduced next door and so worked as to render sleep at night almost impossible, although before its introduction my house was a reasonably comfortable abode, having regard to the local standard." It would be interesting to see what success would be met with by a litigant residing near one of the omnibus routes now traversed by the new motor omnibuses, should he endeavour to prevent the passage of vehicles which travel more noisily and at later hours than those drawn by horses. Whether the evil can be arrested or not in the case of highways, traction engines and motor omnibuses have made substantial addition to the disquiet of London life.

THE LANCET.

LONDON: SATURDAY, DECEMBER 23, 1905.

The Metropolitan Asylums Board and Paying Patients.

A VERY important and interesting question, to which we referred briefly last week, was raised at a recent meeting of the managers of the Metropolitan Asylums Board by Mr. J. T. HELBY. He proposed a motion that the Local Government Board should be requested to sanction the admission of paying patients to the hospitals, asylums, schools, and homes under the control of the managers. His attention, apparently, had been drawn to some of the inconveniences endured in the infectious wards by children of the better classes who were for the time being treated side by side with children from the slums whose general manners and code of behaviour, and especially whose language, left much to be desired. Mr. HELBY noted that during the last year there had been many cases in which sums of money had been offered to the Board in return for services rendered, which money had, of course, to be refused, and he took this fact to show that there were persons using the hospitals of the Board who were prepared to pay for what they obtained and who should, in his opinion, have an opportunity of doing so. The motion was seconded by the Hon. MAUDE A. STANLEY and after a short discussion was referred to the general purposes committee.

The subject was rightly thought to be too complicated and interesting to be disposed of summarily, and we are glad to learn that it will be duly discussed by the general purposes committee, and hope that on the ensuing report it will be fully considered by the Board. The question arises at a somewhat opportune time. Fundamental questions of charity and pauperism are being raised on the one hand by the privations of so many of our fellow citizens and on the other by the enormous scale of our Imperial and Municipal expenditure. All interested in social economy, which means (or should mean) all the medical profession, see how vitally important it is to material progress that the common rights of citizens should be recognised, irrespectively of class or caste, to social and friendly advantage in all the changes and chances of life; but the obligation of the State to keep its expenditure within bounds is equally urgent and the severity with which taxation, Municipal and Imperial alike, presses on the great bulk of self-respecting citizens is notorious. There has been an impression among those who have watched the work of the Metropolitan Asylums Board—in many respects admirable and in others not so praiseworthy—that it was tending to lavishness and that the extravagance has been ill-directed. At the last half-yearly meeting of the managers one of the members moved and carried the reduction of the estimates for the half year by no less than £40,000, which gives cause for thought in these heavily taxed times. The financial bearings of his suggested reform, as they affect ratepayers, were not raised by Mr. HELBY's motion. But we sincerely trust that they will not be overlooked by the general purposes committee, since the Board must be held responsible for the maintenance of a fair attitude towards the public as well as for the interests of the patients entertained in the hospitals during their infectious illnesses. There was no original intention that those who could pay should be let off free of charge and so practically brought within the terms of the pauper classes. No doubt the isolation of the infectious was the primary intention of these institutions, but all who remember their foundation know that they also proposed to offer the amenities of hospital treatment to the poor when suffering in conditions that could not be met by the usual medical charity. No doubt the classes above the poor who, though comfortable enough in ordinary circumstances, have not the domestic or financial means to meet all the nursing, medical, and isolating expenses of notifiable diseases, have a distinct claim on the institutions of the Metropolitan Asylums Board. This is a large class whose case cannot be too kindly considered. Every report of the Board shows that this class is rapidly overcoming all caste prejudices and freely availing itself of the accommodation supplied by the hospitals. Doubtless this remark applies to some even who have the means of isolating in their own houses. What now should be done? It is clear that those who cannot afford to provide proper isolation at home ought in the public interest to use the hospitals. It is equally clear that those who can only just afford to pay for medical attention and the due facilities under their own roof for the treatment of infectious disease ought not to be taxed severely to benefit unscrupulous persons in better circumstances. Those whose main desire is to saddle the public with their medical expenses ought to meet with no public consideration.

We press for no harsh terms to be exacted from the classes that can pay for the use of the hospitals for infectious disease. These were designed in the interest of the public to stop the progress of epidemics and it is false economy to save the small rate and then to be compelled to deal with the expenses of some lamentable outburst. But we have to urge that, in the consideration of any proposal for the admission of paying patients to the hospitals of the Metropolitan Asylums Board, attention should be directed to the interest of the public as well as of the individual patient. Emphasis was laid by Mr. HELBY on the hardship of exposing well-bred children to the use of the language of the slums. This is certainly not the only point of importance, though it raises the question of separate wards and so of larger expenditure. The really important points to be considered are public economy and the maintenance of proper relations between the medical men and the public. The medical profession itself has every right to be considered in this matter. If pay wards are to be introduced into these hospitals the question of the claim of such patients to be attended by their own medical men would properly arise, while full information would have to be forthcoming as to the use of the hospitals by the classes that can, and should, pay. We trust that the general

purposes committee will consider these points very carefully before making its report, as certainly the public will expect from the Metropolitan Asylums Board suggestions for a plan that will be economical and scientifically progressive. Any attempt to belittle the medical aspects of the treatment of infectious diseases is doomed to failure.

The Determination of Pharmacopœial Standards.

THE primary function of a pharmacopœia being the determination of a standard, any suggestion for the improvement of methods must be welcome and must be submitted to rigorous criticism before it is either accepted or rejected. There can be no question about the desirability of constant supervision of this function of a pharmacopœia. It is not merely a matter of purity, though that is sufficiently important, but it is also one of uniformity. Members of the medical profession desire to be assured that the same dose of any individual preparation shall always possess the same degree of potency and can therefore be counted upon to produce the same result. For many preparations that are used internally the actual strength established in the pharmacopœia is almost immaterial since this can be met by an adjustment of the dose, but it is most desirable that galenical preparations which are made in accordance with definite rules should not vary. It is doubtless on this account that so much trouble is taken with the descriptions of crude vegetable substances employed in medicine, since it is well known that the alkaloidal strength is often subject to wide variations according to the habitat and soil, and also, to a great extent, according to the season at which they are collected. A further attempt to secure uniformity is evidenced by the inclusion of the strength whenever possible in terms of the amount of active ingredient which should be present and similar accuracy is enforced in all the galenical preparations.

Notwithstanding this care it is a regrettable fact that hitherto it has been impossible to secure such accuracy with several potent preparations which are largely employed. In spite of the patient and painstaking labours of numerous investigators chemical tests are still wanting for the active ingredients of several drugs possessed of undoubted activity, and uniformity can only be aimed at by employing definite amounts of plants which should, if gathered under similar conditions, yield the same amount of active ingredients. The unsatisfactoriness of this process has long been recognised by pharmacists, who have endeavoured with tinctures to gauge the strength by estimation of the residue after evaporation. Although this test is a sufficient guarantee of the excellence of the work of the individual pharmacist, it can scarcely be relied upon for pharmacopœial purposes, since it is obvious that the amount of residue could easily be modified by improper means. In a brief summary[1] we recently published some extremely interesting observations made by Professor W. E. DIXON and Mr. G. S. HAYNES upon what they term the "bio-chemical standardisation of drugs." The subject was discussed at a meeting of the Therapeutical Society and we are informed that a resolution was passed advocating the insertion of bio-chemical tests in the next issue of the British Pharmacopœia. The method recommended is comparable to that by which various antitoxins have been standardised; it depends upon the experimental determination of the degree of physiological activity, and it is suggested that it should be employed solely for those preparations for which no satisfactory chemical test can be devised. With the members of the digitalis group it is proposed that this activity shall be expressed in terms of the "minimal lethal dose" as determined by experiment. The principle advocated depends upon the fact that these drugs attack cardiac muscle and "when present to a certain amount the heart enters into rigor and dies." Hence it follows that upon the data obtained by experiment it should be possible to establish a standard of comparison which should give a definite measure of the strength of the preparation. Last July at the meeting of the British Pharmaceutical Conference held at Brighton Professor DIXON submitted his views for discussion by pharmacists and it is of much interest to recall the reception that his proposals received from those who would be primarily affected. An initial difficulty was that of the dose to be employed, which must necessarily be determined by the potency of the individual preparation. Thus it is conceivable that for tincture of digitalis there would no longer be an official dose which would apply to everything sold under that name but that the dose would have to be expressed in terms of the strength of the particular sample as determined by experiment. Although it is possible that the meeting was scarcely prepared for the nature of the proposal it was evident that some uneasiness was felt about the innovation, since it did not then seem clear whether every pharmacist who desired to test the materials supplied by a wholesale house would in future have "to keep a menagerie." It was evidently not understood that the proposal implied the formation of a central standardising laboratory to which the manufacturers should submit their wares for approval.

Several speakers referred to the popular prejudice against physiological tests and this really seems to be the main obstacle to the proposal. It is a matter of small importance that physiological tests should not have been included in the United States Pharmacopœia which has recently been issued. If they are trustworthy these tests must find due recognition in time and there is no reason why the British Pharmacopœia should not have the distinction of leading the way. The matter does not, however, seem yet to have reached a practical stage. It is not certain that even when duly sealed and labeled by a competent authority the tinctures will not deteriorate with age. This view was expressed at Brighton and it may be that further experiment may show the need of fixing some time limit for the employment of standardised tinctures. From the practical side, therefore, it may be doubted whether such tests can be usefully included in the British Pharmacopœia, though the authorities will doubtless feel called upon to investigate the accuracy of the statements made in the more recent paper read at the Therapeutical Society regarding the relative strengths of the tinctures of digitalis and of strophanthus. Professor

[1] THE LANCET, Dec. 16th, 1905, p. 1792.

DIXON asserts that the latter has ten times the efficacy of the former as estimated by the minimal lethal dose, and, if confirmed, this observation cannot fail to lead to great modifications in the directions of the British Pharmacopœia. This alone would be a great stride forwards and would demonstrate the utility of bio-chemistry without calling for the formation of a national institution for standardising preparations or for expecting the British Pharmacopœia to insert tests which could not be performed by the average pharmacist.

A Question of Accident or Design.

UNDER the above heading, in THE LANCET of August 5th, p. 393, an action was commented upon which had then been recently tried at the Swansea assizes, with the result that the jury disagreed. A fresh trial has now taken place at Cardiff and a verdict has been returned by the jury which will not surprise those who read our annotation. That which is astonishing, however, about the case, the extraordinary determination of the plaintiff to gain pecuniary compensation by the deliberate mutilation of his limbs and at the risk of his life, has earned for him in the newspapers the title of "the man of iron nerve," and if he has missed the pecuniary reward which he desired he has attained no little notoriety. As an instance of reckless submission to certain physical suffering with a fraudulent intent to make money out of it his case will long be remembered and it is also one of those trials in which the finger of science has been placed with confidence upon the weak spots in the claimant's action, and in which independent medical evidence has been of paramount value in establishing the truth. The plaintiff's story at first sight contained nothing remarkable. He had been travelling alone in a second-class non-smoking compartment of a specified train, between Porth and Pontypridd, on the Taff Vale Railway. He had stood up shortly after leaving Porth station in order to place his umbrella upon the rack opposite to him and in performing this ordinary if somewhat unnecessary act had been caused to reel against the door by a sudden jerk of the train. The door was open owing to the alleged negligence of the company's servants and he had fallen out, with the result that he had lain with his feet across the other line of rails and while he was insensible a train had passed over his legs, crushing them and necessitating amputation. We were in error, apparently, in stating in August that the injury was caused by the train in which he said that he had travelled. Unfortunately for MAY, the injured man, his story told in order to obtain compensation from the railway company not only lacked all corroboration, except in the matter of his undoubted injuries, but was contradicted by witnesses on behalf of the company in matters of detail and inferences to be drawn from his own conduct weighed heavily in the balance against him. There had been no traveller in the compartment which he described when the train left Porth and no door was found open when it reached the next station, so, at least, the company's servants said; and a door if closed, would have been securely and automatically fastened. The locomotive superintendent had found by experiment that no jerk took place when trains passed the place of his alleged fall. On the other hand, it was possible for him to have got there by walking along the line in the dark and there was nothing to prevent him from buying the railway ticket found upon him before starting to do so. In addition to the motive of obtaining compensation from the railway company he had upon him no less than three of those coupon-bearing newspapers which insure their purchasers in the event of railway accidents. It is true that these stipulated for the occurrence of a railway accident in the ordinary sense of the term and that he had been buying similar papers for some months, but the fact that the policy offered did not cover a fall from a train might well escape the stupidly cunning observation of a person devising such a scheme as the railway company assigned to the plaintiff. It may also be observed that before the alleged accident took place he had spoken to his acquaintances of a dream which had foretold the loss of his two legs below the knee and this curious prediction on his part did not tend to strengthen his case before the jury.

The medical evidence, however, and the circumstances surrounding the actual infliction of the injuries told more heavily against the plaintiff's story than facts capable of bearing an innocent construction and statements made by witnesses who, however honest, were unquestionably interested in rebutting the plaintiff's story. His injuries were confined to the crushing of both legs in a straight line, and it was difficult for anyone to explain either how he could have fallen and remained in the attitude necessary for this to occur, or how the fall which had hurled him into the position in which he must have remained unconscious for some little time had left no physical traces behind it. So far, however, from this being the case, there were neither minor injuries nor contusions where severe injuries might have been expected, and the demeanour of the plaintiff immediately after the train had passed over his legs had shown no sign of shock or of the dazed condition usually associated with a sudden severe fall and insensibility. He had summoned a miner who happened to be passing and had given him detailed directions for the improvisation of tourniquets for both thighs, and the medical man who found them there a few minutes later was struck with the coolness that he showed when being removed into a van, putting out his hands to guide the passage of the shutter on which he lay. To Mr. C. A. GRIFFITHS, the surgeon who told him that his two legs must be amputated, he replied, "Yes, I will have my two legs off below the knee." With the exception of the crushing of his legs he was unhurt and his condition generally could not be reconciled with his story. It took the jury, even after evidence such as this, an hour to reject the plaintiff's claim and to find a verdict for the defendant company; but they did so, and MAY will remain, as we have suggested, a classic instance of injuries self-inflicted with a view to compensation. Such acts are not unknown by any means, although they do not always possess the picturesque features of his. Employers of labour on a large scale will be found to be not unacquainted with the workman who is ready to undergo considerable physical suffering in order to enjoy the luxury of resting at his master's expense and to show a misplaced daring and

endurance of pain which, if displayed for a worthy object, would earn him the title of hero. It was the necessity of proving two separate occurrences, the fall from the one train and the accidental crushing by the other, which defeated the plaintiff in May v. The Taff Vale Railway Company. The absence of physical conditions consistent with these could only be detected and pointed out by medical men accustomed to observe the circumstances and conditions accompanying the accidental infliction of severe injuries.

Smoke Abatement.

THE Conference on Smoke Abatement, which was held last week at Westminster, and which was numerously attended by delegates from many different places in which the nuisances and dangers incidental to imperfect combustion have forced themselves on public attention, may without undue hopefulness be regarded as an event likely to bring about at least some measure of the reforms desired by its promoters. The practical and artistic aspects of the questions at issue were alike thoroughly debated. Sir WILLIAM RICHMOND, the chairman of the Coal Smoke Abatement Society, delivered an excellent address in which he showed that he was every whit as urgent for the abolition of coal smoke from sanitary and utilitarian as from æsthetic motives. The share taken by the Royal Sanitary Institute in the organisation of the proceedings secured that the interests of health were also adequately represented, and the participation of Sir OLIVER LODGE, although an unfortunate illness prevented his personal attendance, gave from the first a stamp of scientific importance to the meetings. An exhibition of improved coal grates and of various forms of gas-burning contrivances afforded to manufacturers an opportunity of showing that they have not been idle in relation to the question, and it may be presumed that the Coal Smoke Abatement Society will be prepared, as on former occasions, to test the value of any inventions which may be submitted to it. We published detailed reports of such investigations in May, 1902, and again in February, 1904, the general results being to show that considerable improvements in fire grates had been effected during the interval, and it may fairly be expected that the work of the Coal Smoke Abatement Society will bear further fruit in the near future. Dr. DES VŒUX, treasurer of the society and author of an interesting communication to the Conference, has been recently engaged upon an important piece of research, and when his results are made known it is quite likely that some move may be made for effective legislation.

Notwithstanding the prejudice in favour of coal fires, which rests upon their presumed "cheerfulness," it seems to be certain that their long ascendency in the household is being gradually undermined and that gas fires have to some considerable extent superseded them, both for cooking and for heating. As regards cooking, Sir GEORGE LIVESEY was able to tell the conference that the three principal metropolitan gas companies were putting in new cooking-stoves at the rate of 700 or 800 a week, and everybody who moves about in London houses must be conscious of the extent to which reception rooms are now being warmed by gas fires. But Sir OLIVER LODGE has pointed out that gas fires, as commonly used, are unscientific, and that special care in providing for the removal of the products of combustion is necessary in order to render these fires less detrimental to health and far more cleanly than coal fires. We have no doubt that this might be done, or that, even with ordinary stoking, coal fires might be so constructed as to produce better and more complete combustion than is now the rule, but the domestic difficulty presumably depends in a great degree upon the builder. During the last few years the suburbs of London have been rapidly covered with houses of small or moderate size, rented at from £30 to £80 a year and declared by the builders to be fitted with all modern conveniences. There are miles upon miles of such houses bordering new streets and roads in every direction and the number of them would be counted in thousands. They are mostly the outcome of speculative building leases, and the object of the builder is to complete them as rapidly and as cheaply as possible, to dispose of them before they are dry, and to release his capital for another similar venture. In these circumstances and in complete security that the probable tenants will not know the difference between one grate or gas fire and another the builder is practically certain to fix whatever may be cheapest. The case seems to be one which would justify some revision of the building Acts, or of the by-laws made under them, of such a kind that the local authority might exercise control over the forms of apparatus for combustion which might be employed within its jurisdiction. As far as gas is concerned, any efforts to secure the use of stoves that would fulfil Sir OLIVER LODGE'S requirements might be greatly promoted by the gas companies, whose business it should be to recommend and to supply the more wholesome forms of gas-heating, even if their effects upon the meters were somewhat smaller than those of some less desirable contrivances.

Mr. L. W. CHUBB, the energetic secretary of the Coal Smoke Abatement Society, read a paper to the Conference founded upon the reports made by local authorities with regard to the carrying out of their duties in the matter of smoke prevention; and while he maintained that these returns generally exhibited gross dereliction of duty on the part of the authorities in question, he further expressed his belief that the inactivity of which he complained was a "reflex effect of the supineness of the Local Government Board officials." While seven local authorities had served notices which led to 2181 prosecutions, the remaining 102 authorities had only instituted 167 prosecutions in two years. Mr. CHUBB pronounces this to be "disquieting," but it is difficult to judge of the true significance of the facts without knowledge of the localities in which they occurred. At first sight, moreover, it would appear either that the smoke producers within the limits of the seven active authorities must have been exceptionally recalcitrant, or else that the prosecutions had been curiously ineffective in bringing about a better state of things. It seems likely that the offenders have been men much engrossed by other aspects of their businesses, perhaps with very little knowledge of the facility with which the production of black furnace smoke may be prevented, who have looked upon the fines merely as trade

expenses which they had no choice but to incur. If this be so, Sir WILLIAM PREECE was fully justified in his advice to the Coal Smoke Abatement Society to put its trust in convincing rather than in convicting. He suggested that the society should seriously take in hand the task of showing manufacturers that the effective prevention of smoke would imply a very noticeable economy of fuel. If this be so—and there can be little doubt about the fact—the consumption of furnace smoke will soon be forced upon steam users by the mere force of business competition, and the society or societies will be able to devote almost undivided attention to the domestic hearth which is in the aggregate a very serious offender. We have more than once insisted that the injuries inflicted by fog and smoke upon health are even more important than the associated destruction of property, and if Mr. CHUBB's view of the inaction of the Local Government Board has any foundation we trust that the energies of the Medical Department will soon be exerted in endeavours to bring about more desirable conditions.

Annotations.

"Ne quid nimis."

MR. GEORGE HERRING AND THE SALVATION ARMY LAND SCHEME.

Mr. George Herring, whose magnificent generosity to the Metropolitan Hospital Sunday Fund has so often been chronicled and applauded in our columns, has again shown himself to be one of the foremost practical philanthropists of this country. It is well known that "General" Booth and his coöperators, who are responsible for the organisation of the Salvation Army, have long considered that one of the most effective remedies for the physical, and therefore for the moral, ills of a large section of our fellow countrymen would be to make possible a general return of the surplus urban population to the depleted rural districts. "General" Booth in his famous work, "In Darkest England and the Way Out," indicated rural colonisation as a practical remedy for many of those conditions which distress alike the religious ministers of all denominations and thoughtful politicians of all platforms. In the writings, again, of the Right Hon. Charles Booth will be found scores of close and statistical arguments for holding the same view. Some of our most enlightened thinkers have issued cogent pleas for the institution of a trial scheme of land occupation, the colonists to be derived from the overcrowded cities, and recently Mr. Rider Haggard, in the character of a commissioner of the British Government, made an exhaustive investigation of the institutions of this nature which are flourishing in America under the ægis of the Salvation Army. Mr. Haggard's succinct and lucid report was fully reviewed in THE LANCET at the time of its appearance [1] and we then expressed a hope that a movement attended on the other side of the Atlantic with such promising issues would soon be imitated in England where the problems presented by the over-dense urban populations are so pressing. Mr. George Herring has now come forward and placed at the service of the Salvation Army £100,000 to finance such a movement and the conditions under which the money is supplied are extremely liberal. They are so loose that no reasonable initiative on the part of those benefited can be hampered, but at the same time malversation is prevented. The Salvation Army is to conduct, to control, and to supervise the whole effort; a portion of the money is to be expended immediately in experiment and the remainder will be furnished as it is demanded by exigencies, which can only arise after actual working has been begun. Mr. George Herring is a business man and knows that in "General" Booth he is dealing with his like, and this is exemplified by the condition that the whole of the money shall be repaid in 25 instalments of £4000 each to the King's Hospital Fund. Mr. Herring thus continues his unequalled generosity to the noblest of our charities while accenting his belief in the commercial value of a land colonisation scheme. At the same time the Salvation Army is pledged to make every effort that the money spent shall bring back a return in interest, exactly as would be expected of it if it were being used to develop an ordinary commercial undertaking, the result in a splendid harvest of increased happiness, increased physical and moral health, and increased national prosperity being additional to commercial stability. May all good luck attend Mr. Herring's splendid donation. The terms upon which the land will be held by the settlers and the arrangements for the payment of annual interest, for the foundation of an extinction fund, and for the provision of expenses of management, will be readily understood by anyone who reads Mr. Haggard's report to which we have already referred, while full information will be given by the Salvation Army to all inquirers.

[1] "The Poor and the Land." Being a Report on the Salvation Army Colonies in the United States and at Hadleigh, England, with Scheme of National Land Settlement, and an Introduction by H. Rider Haggard. Longmans, Green, and Co., London, New York, and Bombay. Price 1s. 6d.

THE YULE-TIDE FIRE.

"THE fire looks frosty" is the remark very commonly made when the glow of the winter fire is more than usually radiant and, whatever may be the explanation, the fire, as a rule, burns brightly and clear when frost sets in and the air is keen and dry. The presence of moisture in air undoubtedly hampers combustion and the fire is slack and dull on a foggy or wet-saturated day. Most people are in the habit of associating a bright, cheery, incandescent fire with Yule-tide and if the keen air fail compensation is sought for in the merry, cheerful flame of the wood-log. Then, too, ship timber is a favourite form of fuel because it gives very often a beautiful blue or blue-green flame which even to those who are ignorant of its cause is interesting. Probably when we come to inquire we shall find that the chief merit of the ship log in burning is that the lambent flames are streaked with colour. Fraud even in this small domestic item steps in and as a rule if the flames of a so-called ship log are not of a bluish-green colour it is open to doubt whether the wood is ship timber at all, for it is the sea-saturated wood coupled with the small amount of copper left in the wood by the copper nail which combine to produce the beautifully coloured flame effects. The pure diaphanous blue flame is often a product of the combustion of coal or coke, for it is characteristic merely of the burning of carbon monoxide which is so readily formed when a fire attains the condition of a ruddy glow. This flame, however, is very different from the copper flame. If ship logs are disappointing in regard to producing a beautifully green-blue coloured flame a very simple remedy is to place some scrap copper or copper wire at the base of the fire with some common salt. The effect obtained is fairly lasting and very beautiful. Everyone knows that salt thrown upon an incandescent fire gives rise to the production of a more or less blue flame. This is due to the formation of chlorinated hydrocarbons and possibly chloroform, which almost as soon as they are formed burn when in contact with the air with a blue or blue-green flame. The chemistry of

the blue flame thus may to serve remind us of anæsthetics and the inestimable rôle which they exercise in the relief of suffering and in the accomplishment of surgical aid. We may therefore be led to think appropriately at this season of the great charitable work of our hospitals when watching the beautiful blue flames of the Yule-tide fire.

ADULTERATION OF FOOD AND DRUGS IN BOMBAY.

A PAPER on the Adulteration of Food and Drugs in Bombay by Mr. Dosabhai Rastamji Bardi, senior tutor in chemistry and medical jurisprudence at the Grant Medical College, appeared recently in the *Transactions of the Bombay Medical and Physical Society* (vol. ix., No. 1). From this paper it appears that the municipality of Bombay, which rejoices in the proud motto, *Primus in Indis*, is unfortunately behind many civilised cities in the provision of means to detect and to prevent the adulteration of food and drugs. It has only one officer designated "analyst," whose principal duty seems to be to examine samples of municipal stores, but the work is so light that he is allowed to undertake private work in addition to his municipal duties. No facilities exist in Bombay for procuring samples of food and drugs for analysis and no recognised and trustworthy standards have been set up. In fact, present conditions would appear to be somewhat similar to those which existed in this country prior to 1860, when Parliament passed the first Act against the adulteration of food and drugs, being roused to activity by the reports of the Analytical Commission appointed by THE LANCET. That the adulteration of food and drugs in Bombay is very prevalent is shown by the results of the analysis of certain taxable foods and drugs which were examined by the Government chemical analyst, Bombay, for revenue purposes. Of 219 samples of ordinary foods and drinks examined from 1890 to 1900 no less than 105 were adulterated or unfit for consumption, while of 78 samples of drugs examined during 1892–95 no less than 65 were adulterated or unfit for consumption. Mr. Bardi describes in an able manner the various forms of adulteration which are practised on foods and drugs intended for consumption in Bombay. Of these reference need only be made to those presenting unusual features. Milk is chiefly adulterated with water and is one of the most fruitful sources of disease in Bombay owing to the impurity of the water. As a result the infantile mortality reaches the high figure of 786·5 per 1000 births, though this abnormal death-rate is partially attributed to the large use of adulterated condensed milks for the feeding of infants. In addition to the various products of the dairy known in this country the natives prepare large quantities of ghee and dahi. Ghee, also known as clarified butter, is prepared by boiling butter until it becomes granular and dahi, which is sour boiled milk in a coagulated form, is prepared by adding dahi or butter to boiled milk. Both these foods are extensively used, especially the former, and are adulterated to a great extent, the former with various fats and starches and the latter with impure water. The Hindus, who as a class consume a large quantity of ghee, suffer from digestive troubles which they, in common with their physicians, ascribe to its adulteration. In the case of bread a vetch, *lathyrus sativus*, Kesari Dal, or *l. cicera*, is employed as an adulterant of barley and wheat. Mr. Bardi gives a list of poisonous chemical substances which are used for colouring sweets and confectionery. Thus, compounds of barium, arsenic, antimony, and lead are used for producing a yellow colour; compounds of arsenic with copper to give a green colour; compounds of barium and zinc to confer whiteness; and Prussian blue for producing a blue colour. In the case of tea exhausted leaves are sometimes treated with catechu. Turning to drugs, Mr. Bardi enumerates those which have been found to be adulterated. Of these, santonin calls for special mention owing to the large proportion of boric acid with which many samples of it were adulterated. This is an ingenious fraud, advantage being taken of the similar flaky appearance of boric acid and santonin. Mr. Bardi then proceeds to suggest suitable standards of purity and means of detecting adulteration. In the case of infants' food he proposes that it must be free from woody fibre, mineral matter insoluble in acids, and preservatives. It must not consist chiefly of starch and should be accompanied by directions as to the proper quantity for a child during 24 hours. Foods with a low percentage of fat should be made up with milk and milk foods should not be deprived of the milk fat. In reporting upon tinned foods Mr. Bardi suggests the rejection as unfit of all tins that are perforated by nails or show angular indentations, together with those that are bulged out with gas and which are rusty or not hermetically sealed. When a tin produces a hollow sound on being gently struck with a small wooden mallet it should be condemned. Finally, Mr. Bardi considers the various means of preventing adulteration and suggests measures based on the English Sale of Food and Drugs Act. A clause is inserted for the examination of imported foods and drugs at the port of entry by properly qualified Government examiners, so as to prevent the importation of all adulterated articles. In the case of perishable drugs Mr. Bardi urges the necessity for adopting special precautions similar to those suggested by the Medico-Legal Society of New York, whereby such drugs should be marked with the date of manufacture and a time limit fixed, after which the drug would be unfit for use. As regards repressive measures, Mr. Bardi approves of the Parisian method of fining a dishonest shopkeeper and then condemning him to a public confession of his guilt by stating the particulars on a large placard conspicuously exhibited in his shop during the pleasure of the court.

ARTHRITIS IN ACUTE DYSENTERY.

IN the *Journal of the Royal Army Medical Corps* for December Major W. W. O. Beveridge comments upon a complication of acute dysentery which has received little notice—arthritis. In 1902–03 he had under observation 147 cases of acute bacillary dysentery in the military hospital at Pretoria. In 3 per cent. of these on the decline of the more urgent symptoms, when the temperature had fallen to normal or nearly so, a sudden rise occurred and was followed by rapid effusion into one or several of the large joints—especially the knee, ankle, and elbow. In several cases pain preceded the effusion by from 12 to 24 hours. The affected joints were very painful both on movement and on pressure, but were not acutely inflamed, showing no redness or heat. In some cases only the knees were affected, the swelling of one preceding the other by 24 hours. After from eight to 12 days the effusion subsided leaving slight stiffness. There was never any tendency to recurrence. The temperature was of the septicæmic type with a sudden initial rise accompanied by a slight rigor and evening exacerbations. In none of the cases was there evidence of gonorrhœa and salicylates had no influence on the arthritis. Quinine in five-grain doses with the usual local measures appeared to be the best treatment. The following case is an example. A soldier, aged 20 years, who had been on service in South Africa for ten months was admitted to hospital in Pretoria on Feb. 2nd, 1903. On the ground where he was encamped dysentery had been prevalent during the previous summer. The evening temperature was 101° F. He passed six motions in the 24 hours, consisting of only blood and mucus. On

palpation the colon felt thickened. The tongue was dirty, brown, dry, and fissured. Salicylate of bismuth and compound powder of ipecacuanha were given. On the 13th there was no blood in the stools which consisted of mucus and some feculent matter. On the 16th the temperature fell to normal and there were only three loose motions in the 24 hours. On the 25th the patient complained of pain in the right knee but there was no visible swelling. On the 26th the temperature, which had been normal for three days, rose to 101°. The right knee-joint was full of fluid and blood and mucus again appeared in the stools, which numbered three in the 24 hours. On the 27th the left knee was swollen and painful and the temperature rose to 102°. On March 3rd the right elbow-joint was also swollen and painful. On March 4th the left ankle was similarly affected. On March 5th there was evidence of mitral endocarditis. On the 6th the temperature rose to 104·4° and cultures from the blood showed a micrococcus. On the 8th there was considerable improvement in the joints. Complete recovery ensued. In four out of five other cases a micrococcus was obtained from the blood during the height of the symptoms. On the other hand, in typical cases of dysentery without arthritis the blood was found to be sterile. Several observers have found micrococci in the blood in dysentery. Lesage has grown a micrococcus from the blood and fæces in acute dysentery. Dr. H. E. Durham and Dr. F. W. Mott have described a small micrococcus in the blood and organs in asylum dysentery. As to the occurrence of arthritis in dysentery, Sir Patrick Manson states "that a condition resembling gonorrhœal rheumatism has frequently been noted as a sequel in dysentery and at least one epidemic has been recorded in which a large proportion of the cases were affected in this way."

COMMON COLDS.

THE question of catarrh is still *sub judice*. It is now held by Dr. Chalmers Mitchell to be caused by an excess of proteids in diet and others advance various other theories. Many years ago Dr. C. E. Page of Biddeford, Maine, was hailed by contemporary newspapers as the discoverer of the feverish origin of cold. He was an austere supporter of his own theory. Waking on a bitterly cold morning with all the symptoms of a feverish cold, including "a tightness of the tubes," he resisted the temptation to put on flannel drawers, took a quick cold sponge bath, waved aside the breakfast for which he longed, and went out hungry to a long day's practice in the American snow. After many hours in the bitter cold he felt much better and went to bed comparatively well after indulging in another cold bath. Readers of his account of how to deal with a heavy cold may be pardoned if, even at this late hour in the history of medical science, they marvel that Dr. Page escaped pneumonia. He was certainly a revolutionist in the treatment of catarrh, for previously to his day colds were treated in the time-honoured manner, sufferers shutting themselves up in stuffy rooms, taking hot foot-baths and hot toddy, and going to bed under a quantity of bed-clothes after copiously anointing their noses with tallow. Our ancestors regarded colds as the result of an excess of "rheum," to rid themselves of which they indulged in most fantastic practices. In an old work on domestic medicine, still in vogue in 1791, the man with catarrh is advised to "take a little stick and tie about the end thereof old oaken leaves, then cut them something round, and hold the same leaves in your mouth as deep and as far as you can suffer it well (holding the stick between your teeth), and so hold your mouth over a pottinger or a dish, and there will great abundance of humours void out of your mouth; and within a while, wash in fair water the said leaves on the stick, and then hold in your mouth so again. Do this for the space of half an hour, and use this three or four times a day for three or four days together, or until you have avoided as much watry humours as you think good. This," adds the old writer triumphantly, "is the best and presentest remedy for helping of the Rheum that ever I knew or heard of—I had it of a Gentleman that esteemed it as a treasure; and whosoever proves it, shall find it an excellent thing."

STREET AMBULANCES FOR LONDON.

FOR some time past the London County Council has been considering the establishment of an ambulance service for London and on July 25th the Council resolved:—

That an application be made in the next session of Parliament to enable the Council to provide and maintain, or to aid in providing and maintaining, an ambulance service to deal with street accidents.

On the same date the Council had before it a scheme provisionally prepared by the general purposes committee for an ambulance service within three miles of Charing Cross. The finance committee also reported on this scheme, and finally the scheme together with the comments of the finance committee were referred to a subcommittee presided over by Sir W. J. Collins, M.D. On Dec. 20th the general purposes committee recommended that a less expensive scheme than that originally proposed should be adopted In this report the committee says:—

We think that two stations, one north and one south of the river, should be established—the latter in Lambeth, near St. Thomas's Hospital. These, together with one which we understand the City corporation proposes to establish within the City of London, would render ambulance service available for the zone in which street accidents are most frequent. We have considered, with the concurrence of the establishment committee, the suitability for the southern station of a site at Bridge-wharf, Lambeth, already in the possession of the Council, and have had rough estimates prepared of the initial cost of a trial station there and of a similar one near Charing Cross. We are of opinion that motor will be preferable to horse ambulances but we have not arrived at a definite decision whether electric or petrol cars will be the more suitable and serviceable. We think that the staff should be non-resident and that 15 men will probably be required for the two stations. These men should all be capable of rendering first aid as well as skilled in driving and attending to the machines. The area of the telephone call service proposed in our previous report will be proportionately reduced.

The finance committee says that the estimated expense for this scheme is £5200 for the first year, including £2200 for the initial outlay. The committee, however, discreetly adds, "it is stated that this must not be regarded as other than approximate." The recommendations of the general purposes committee were adopted without discussion.

THE LARYNX IN TYPHOID FEVER.

IN the *American Journal of the Medical Sciences* for November Dr. C. Jackson has published an important paper on the condition of the larynx in typhoid fever based on 360 cases carefully examined throughout their course in the Western Pennsylvania Hospital. His conclusions differ in many points from those of previous writers but it must be borne in mind that the patients were drawn from a district in which typhoid fever in a severe form is always prevalent and that they were neglected before admission, their mouths being allowed to get into a foul state. Three types of laryngeal disease were observed—subacute laryngitis without solution of continuity of the mucous membrane, ulcerative laryngitis, and perichondritis with or without necrosis of cartilage. Subacute catarrhal inflammation was present in 227 cases (63 per cent.). It differed from laryngitis observed in other conditions only in the fact that the surface was at all times bathed with secretion, much of which came from the deeper air passages. Ulcerative laryngitis was present in 68 cases (nearly 19 per cent.), of which four were fatal. Perichondritis with necrosis was present in six cases; without necrosis, in 11. Tracheotomy had to be performed in six cases. The typhoid bacillus was found in the throat both in the lesions and elsewhere. But it was not present in greater numbers in cases in which lesions of the throat were present than in those in which they were absent. After ulceration

occurred pus cocci were much more numerous in the throat than was the typhoid bacillus. Ulcerative tracheitis occurred in nine cases. Dr. Jackson finds that laryngoscopy is not difficult in typhoid fever to one accustomed to work, as every laryngologist should be, with the patient recumbent. Only œdema may be seen and this may conceal ulcers. In one case a membrane was observed lining the larynx and trachea as far as could be seen. This could be wiped away without leaving a bleeding surface. In four cases purpuric spots were seen on the laryngeal mucosa. Tracheitis without ulceration was observed in 126 cases, many of which were very mild. In typhoid laryngitis all the usual symptoms of laryngeal disease may be absent or masked by those of the general disease. The symptoms which may be observed are local pain and tenderness, stridor, dyspnœa, dysphagia, dysphonia, hoarseness, croupy cough, and external swelling over the thyroid cartilage. Dyspnœa may be due to œdema, occlusion of the respiratory lumen by a projecting abscess or by necrotic tissue, collapse of the larynx from necrosis of the cartilages, or fixation or abductor paralysis of the vocal cords. In four patients who were saved from asphyxia by tracheotomy there were none of the usual symptoms of laryngeal obstruction—sitting up, gasping, stridor, struggling or violent action of the accessory muscles of respiration. The diagnosis of laryngitis is easy if the larynx be examined regularly; if reliance is placed on the symptoms not more than one case in ten will be diagnosed. The prognosis of cases of typhoid fever accompanied by laryngitis does not appear to be any worse than that indicated by the general condition. As to the voice, complete recovery took place in 45 out of the 68 cases of ulceration. Permanent deformity without loss of voice or stenosis resulted in eight cases. Stenosis requiring surgical aid resulted in five cases but in all the voice was useful, though rough. As to treatment, oral antisepsis is the first indication. Inhalation of benzoin from hot water is useful. If tracheotomy is required it should be performed under local anæsthesia. Under general anæsthesia there is great danger of the respiration stopping.

UNDESERVED PUNISHMENTS OF CHILDREN.

A LARGE amount of the so-called naughtiness of children may be accounted for upon grounds which quite exclude the desirability of punishment for its correction. It may be due to the fact that the child has had insufficient sleep or is overtired after a long day's excitement away from home; such cases are noteworthy at this time of the year, particularly when family parties are met on their way home from visiting friends. Children may be restless or restive as the direct result of being under-tired; they may have been confined at home for the whole day owing to the inclemency of the weather, and as a consequence the only apparent outlet for their restrained physical energy is found by annoying those who have charge of them. There are also some cases in which an incipient physical or mental disorder may manifest itself by symptoms which very strongly resemble wilful perversity unless the possibility of the onset of an illness is borne in mind. Thus, a deaf child is often an inattentive child and has been occasionally classed among the mentally defective. An attack of chorea may be ushered in by fidgetiness or by dropping articles from the hand; it is notorious that ill-timed punishment in these cases at times has precipitated a severe attack; stuttering and shyness are also likely to be aggravated by being noticed. Dr. G. F. Still has named as "physical tic" what is popularly known as "the fidgets." With this disease, as also with cases of acute chorea, there is always some instability of the brain. Meningitis may show as its initial symptoms a tired listlessness and general malaise. Further, the faculty of imitation is strongly developed in some children and they may copy unconsciously a bad habit, in deed or in word, of a parent or a teacher. A dull child is a wise man's problem and it is surprising how well that problem is solved by the teachers of the classes conducted under the Elementary Education (Mentally Defective and Epileptic Children) Act, 1899; with most unpromising material the care, the kindness, and the firmness of the tuition are remarkably effective with these unfortunate children while they are at school. It has been said that many scholars are punished for the faults of their teachers; this is undoubtedly true when such faults exhibit themselves as a continually close atmosphere in the schoolroom or a prolonged strained and cramped attitude of the scholar's body while he is seated at work; frequent brief periods of exercise in the open air are essential, in order to arouse the circulation and to stimulate the mind, if a mischievous disposition or a marked lack of attention is to be combated. Much unpleasantness and many useless reprimands would be saved if, for example, a mother who notices that her daughter's "shoulder is growing out" would apply at once for competent medical advice, which would assure her that the disfigurement was not the result of the girl's indifference as to her personal appearance.

THE STATE AND STANDARDISATION.

A MEMORIAL signed by 150 Members of the House of Commons appeals to the Chancellor of the Exchequer for an increased grant of money to enable the excellent work of the National Physical Laboratory at Teddington to be continued on a larger and much more efficient scale. At present it is said that the annual grant amounts to about a tenth of that allocated to a similar laboratory of standards in Germany, and it is decidedly smaller than the allowance made in other countries. There are many cogent reasons why the request of the petitioners should receive an unmistakeably generous response from the Treasury. The importance to the nation of the work that could be done at such an institution were it properly equipped and organised on a sufficiently large scale cannot be too strongly stated. When will English people recognise the fact that if the industries of the country are to make progress there must be scientific application and control? A few thousand pounds annually spent upon a national institution of scientific control are utterly inadequate for its needs and totally inconsistent with the quantity and quality of work which it should produce. It is high time that the State should accord to this urgent matter its very serious attention and should realise what a valuable asset to the nation is a national institution of scientific control.

WHAT IS WHISKY?

Mr. Fletcher Moulton, K.C., M.P., opened the case for the defence in the proceedings in the whisky case at the North London police court on Monday last. He regarded the whole case as a trade dispute and it either meant, he said, that the borough council of Islington was using the ratepayers' money to settle a squabble between a Highland industry and an industry in Glasgow and Edinburgh, or else that there were people in the trade who were using the name of the local authority in order to institute these proceedings, and if it were so it was quite time that such an abuse of the process of the law should be stopped. He contended that whisky need not consist of spirit made in a pot still, and, further, that the standard of 380 parts of impurities in 100,000 parts of alcohol would exclude even pure pot-still whisky itself. The correct definition of "whisky," in his opinion, was spirit distilled from grain. The patent still was the application of science to a rude mediæval process. Mr. Moulton produced a guaranteed all-malt whisky made

from a patent still and he contended that that gave the lie direct to the statement that a patent still could only produce a silent spirit. To say that because a thing was made by a different plant it should not be sold under the old name was as absurd, in his opinion, as to argue that flour made by roller mills was not flour because it was originally ground between two stones. The case was adjourned until after Christmas.

THE SEAMEN'S HOSPITAL SOCIETY AND POST-GRADUATE STUDY.

THE secretary of the Seamen's Hospital announces that arrangements have been made for the holding of courses of post-graduate instruction at the "Dreadnought" Hospital, Greenwich, and that the session will commence on Jan. 15th, 1906. The original hospital was a floating one moored off Greenwich but since 1870 the patients have been accommodated in a hospital on shore which now contains 250 beds and provides annually for 2000 in-patients and 10,000 out-patients. The physicians and surgeons attend every afternoon except Saturday. The assistant physicians and assistant surgeons attend the out-patients daily in the forenoon. Clinical lectures will be delivered on five afternoons a week. Special departments will be formed for diseases of the eye; of the throat, nose, and ear; of the skin; and of the teeth; there will also be a department of electrical therapeutics and radiography. It is intended to have three sessions of ten weeks' duration in each year. The fees for attendance on the ordinary practice of the hospital in the wards, operating theatres, post-mortem rooms, and out-patient rooms, including admission to ward cliniques and clinical lectures, are four guineas for one month and two guineas for each subsequent month. Male patients only are received as in-patients by the Seamen's Hospital Society, but arrangements have been entered into with other hospitals for the reception of post-graduates who desire instruction in obstetrics and diseases of women and children. Full details may be obtained from the medical superintendent of the hospital.

THE EARLY OCULAR SIGNS OF GENERAL PARALYSIS OF THE INSANE.

IN an article upon the above subject in the *Journal of Mental and Nervous Disease* for November, Dr. Ward H. Holden of New York remarks that whilst there is no dearth of statistics in regard to the ocular signs of general paralysis of the insane many of the results arrived at are open to criticism, firstly because patients in different stages of the disease have been included in them so that early and late conditions have appeared in the same category, and secondly because cases complicated with tabes dorsalis have not been excluded, so that the ocular signs of the latter disease are added to those of general paralysis proper. In his capacity of ophthalmologist to the Manhattan State Hospital Dr. Holden has examined the condition of the pupils in a series of 70 cases of general paralysis uncomplicated by tabes dorsalis and in a fairly early stage of the disease. The results obtained may be summarised as follows. The shape of the pupils was irregular in 51 cases, or 70 per cent., an abnormally high percentage considering the age of the patients. They were unequal in 32, or 45 per cent. The "sensory" pupillary reflex, by which is apparently meant the dilatation which ensues on exciting the cervical sympathetic, was absent in 61, or 87 per cent., a very large number considering the ages of the patients. Direct light reaction was sluggish in one eye or usually both eyes in 15 patients, or 21 per cent., and wanting in one eye or usually both eyes in 20 cases, or 28 per cent. As regards the consensual reaction, unfortunately no statistics are given, but it is stated that with sluggish direct action sluggish consensual reaction may be expected. The reaction on convergence was sluggish in six cases, or 9 per cent., in all of which the light reaction was sluggish or wanting. The size of the pupils ranged from 1·5 to 5 millimetres, and in 37 patients, or 55 per cent., the pupils, either in the case of one or both, were smaller than the average for the patient's age and refraction. Dr. Holden found no instance of atrophy of the optic nerve amongst these 70 patients and has but rarely found pallor of the optic discs amongst some hundreds of patients examined at various stages of the disease, excluding cases with symptoms of tabes dorsalis or of poisoning by nicotine.

THE FIRST MITCHELL BANKS MEMORIAL LECTURE.

Mr. Reginald Harrison gave on Monday last, Dec. 18th, before the University of Liverpool, an interesting address on the Prospects and Retrospects of University Life, the occasion being the delivery of the first Mitchell Banks Memorial Lecture. Sir William Mitchell Banks, who died suddenly in August, 1904, at the comparatively early age of 61 years, was a great anatomist, a skilled surgeon, and a fine teacher; his work in behalf of all higher medical education counted for much in the evolution of the University of Liverpool and the sorrow occasioned by his death was soon followed by the expression of a widespread public desire to perpetuate his memory in a manner suited to his life and work. A considerable subscription was soon raised and the bulk of the money was devoted to the provision of a new out-patient department for the Liverpool Royal Infirmary, but at the same time a lectureship was founded and associated with Sir William Mitchell Banks's name which will thus be kept worthily before the notice of generations of medical students like unto those for whom and with whom he worked. The council of the University of Liverpool did well to confide the first memorial lecture to Mr. Reginald Harrison, whose tribute to the life work and influence of his dead friend was exceedingly happy in its graceful and warm sympathy, and whose knowledge of the University records was displayed as remarkably minute. The Vice-Chancellor of the University, Dr. A. W. W. Dale, presided at the delivery of the lecture and among a large and representative audience was Lady Banks, the widow of the late Sir William Mitchell Banks.

THE medical officer of health of the Cape Colony states that for the week ending Nov. 25th the condition of the Colony with respect to plague was as follows. No case of plague in man was discovered throughout the colony nor in any other animal, except at Port Elizabeth, where 4 plague-infected rodents were found. At the plague hospital at Port Elizabeth 1 case remained under treatment. As regards the Mauritius a telegram from the Governor, received at the Colonial Office on Dec. 15th, states that for the week ending Dec. 14th there were 8 cases of plague and 7 deaths from the disease.

IN the list of those recommended to the King by his Ministers for the reception of honours upon the resignation of the Ministry occurs the name of one medical man—namely, that of Mr. Edgcombe Venning, F.R.C.S Eng., who receives the honour of knighthood. Mr. Venning is a well-known practitioner in London and was formerly surgeon to the 1st Life Guards and we offer him our hearty congratulations upon the honour which His Majesty has been pleased to confer upon him.

A SERIES of clinical evenings will be held at the Central London Throat and Ear Hospital, Gray's Inn-road, at which interesting cases will be shown, on the first Thursday in

each month. On Jan. 4th, at 8 P.M., Dr. J. Dundas Grant will preside. Medical practitioners are cordially invited.

METROPOLITAN HOSPITAL SUNDAY FUND.

ON Dec. 18th at the Mansion House the LORD MAYOR presided over the annual meeting of the constituents of the Metropolitan Hospital Sunday Fund. Among those present on the platform were the Bishop of London, the Chief Rabbi, the Archdeacon of London, the Archdeacon of Westminster, the Dean of Carlisle, Canon Fleming, the Rev. W. H. Harwood, the Rev. E. H. Pearce, Sir Marcus Samuel, the Hon. Sydney Holland, Sir William Church, Sir Savile Crossley, Sir Richard B. Martin, Sir Henry Burdett, Sir Joseph Dimsdale, Sir William Broadbent, Dr. J. G. Glover, Mr. Wakley, and the secretary, Sir Edmund Hay Currie.

The BISHOP of LONDON, in proposing that the report of the council for the year 1905[1] should be received, said that the metropolis of London ought to be proud of the grand work done by its hospitals. He had spent the best years of his life in the slums of our great city and he did not know what the clergy who worked in these districts would do were it not for the aid rendered by the hospitals. The work of the Fund in the cause of hospitals had the effect of drawing together members of all denominations who met on a common platform in an honourable rivalry to see what could best help on the common cause of humanity. It was a great thing that this work should be a voluntary one and he would be very sorry if it should ever be found necessary to place hospitals upon the rates. He congratulated the secretary of the Fund upon the results of his labours for the year 1905, which had helped to produce the magnificent total collection of over £78,000.

The Rev. W. H. HARWOOD, in seconding the motion, referred to the arduous labours of the distribution committee of the Fund.

At this point the Hon. STEPHEN COLERIDGE said that he wished to move an amendment but the LORD MAYOR refused to accept it as previous notice had not been given, remarking that Mr. Coleridge could bring forward his motion later.

On the motion of Canon FLEMING, seconded by the CHIEF RABBI, Hospital Sunday for 1906 was fixed for June 17th, and it was decided that "the cordial coöperation of ministers of religion within the metropolitan area be again invited in the usual way."

On the motion of the DEAN of CARLISLE the council for the year 1905 was re-elected, with the addition of the Ven. Archdeacon of Middlesex, the Rev. R. J. Campbell, the Rev. Charles Brown, and Sir Frederick Treves to fill vacancies.

The LORD MAYOR, in moving that "the best thanks of this meeting be given to Mr. George Herring for his generosity, which has assisted the Fund to secure the large amount of £78,379," said he hoped that Mr. Herring might long be spared to continue his generous assistance to the Fund.

Sir WILLIAM CHURCH, in seconding the motion, said that Mr. Herring's services to the Fund did not end with gifts of money. His work as a member of the distribution committee was most valuable.

The Rev. E. H. PEARCE proposed that "the committee of distribution be empowered to set aside a certain amount for the purpose of grants to district nursing associations employing fully trained nurses; that such amount so set aside shall not exceed 5 per cent. of the sum collected in any year; and that the laws of the constitution be altered accordingly." He pointed out the value of the work of the trained nurse amongst the poor as an auxiliary to the work of the hospitals. There was a large number of cases which if attended to by a properly trained nurse never came within the purview of the hospital at all, while on the other hand the hospitals could discharge patients at an earlier date than otherwise if they knew that the patient would have the benefit of a qualified nurse at home.

Mr. F. H. NORMAN seconded the motion which was carried unanimously.

Mr. STEPHEN COLERIDGE then proposed the following motions:—

1. That no hospital which makes a grant to a school from its resources for any purpose whatever shall receive any money from this Fund.
2. That no hospital shall receive a contribution from this Fund whose managers have invited its subscribers to transfer their subscriptions to any other object than the general funds of the hospital, until the subscriptions so transferred to any other account have been re-transferred back to the general funds of the hospital.

He said that he had not attended the meeting for the purpose of attacking hospitals but he stood up for the poor from whom large sums of money given exclusively for them had been taken away and used for other purposes. Sir Edward Fry's committee, which was appointed to inquire into the financial relations between the hospitals and medical schools by King Edward's Hospital Fund, had reported against the diversion of the funds. If the meeting did not agree to the first motion it would not be acting in accordance with the finding of Sir Edward Fry's committee. The second motion, he said, was addressed to certain hospitals which, seeing that the committee was against the diversions referred to, proceeded to devise means to evade them. Two hospitals had invited their subscribers to pay their subscriptions in one case to a separate fund and in another case to a discretionary fund. That, in view of the finding of the committee, he considered extraordinary conduct on the part of the hospitals concerned.

Canon WILBERFORCE (Archdeacon of Westminster) seconded the motions. The main principle which underlay the motions and his object in seconding them was one which he did not think advisable to bring forward. He associated himself with every word spoken by Mr. Coleridge, for he thought it inadvisable that a great and honourable profession should educate its *alumni* by money which *prima facie* was intended for the sick poor. He had a large Sunday Fund collection in the bank and if Mr. Coleridge's motions were not adopted he would take care that every penny of it went in some way or other for the relief of the sick poor.

Archbishop BAGSHAWE thought it was dishonest to use money which had been given for the sick poor on the education of young doctors.

The Hon. SYDNEY HOLLAND said he doubted very much whether the motions proposed by Mr. Stephen Coleridge could possibly be thought in order. He understood that neither the secretary nor the council of the Fund had received any notice that the motions were going to be proposed, but he knew that private letters had gone out to many clergymen in London in order that a snap vote might be secured in favour of Mr. Coleridge. Mr. Coleridge was not concerned with the sick poor, for he stated in his evidence before Sir Edward Fry's committee that he would not have interfered had not there been vivisection at the medical schools. The council of the Metropolitan Hospital Sunday Fund had already passed a resolution to the effect that no grant should be made from the Fund to any hospital which failed completely to comply with the following recommendation of Sir E. Fry's committee:—

For the future the distinction between the hospital and the school should in every case be drawn not only definitely and exactly but with such clearness that it may be understood by the general public, and so that no question may arise as to the destination and application of moneys contributed, whether by the King's Fund or from any other source.

Those of the public, therefore, who did not wish their money to go to medical schools were absolutely safe in subscribing to the funds. With reference to the discretionary fund, it was childish for Mr. Coleridge or anyone else to say how a subscriber to a hospital should spend his money. Though ostensibly on behalf of the sick poor Mr. Coleridge's proposals were really intended to prevent subscribers to the Fund from spending their money in the way they thought best and if it were successful the subscriptions to the Fund would be much smaller than they were now.

The Rev. C. H. GRUNDY said that the resolution already passed by the council of the Fund was a safeguard for the money collected by the Fund being properly used.

Mr. COLERIDGE pointed out that by the laws of the constitution of the Fund no one was entitled to vote upon his proposals who was not a constituent of the Fund.

Sir EDMUND HAY CURRIE said that he wished it to be

[1] Vide THE LANCET, Dec. 2nd, p. 1632.

known why there was such a large number present at the meeting and what Mr. Coleridge and others had been doing to get people there. He (Sir Edmund Currie) had received a letter from a clergyman who informed him that the Anti-vivisection Society had been canvassing each parish for cards for admission to the meeting. The clergy, he said, had perfect faith in the Fund, which was demonstrated by the fact that it was usually not largely attended.

The motions were then put and defeated by a large majority. Mr. COLERIDGE'S demand for a scrutiny was not acceded to.

The meeting then terminated with a vote of thanks to the LORD MAYOR, proposed by Archdeacon SINCLAIR and seconded by Sir SAVILE CROSSLEY.

THE LIMITATIONS OF A PHARMACOPŒIA FROM THE VIEW-POINT OF A PHYSICIAN.

THE inclusion of unnecessary drugs in pharmacopœias and the undue complexity of many official pharmaceutical preparations formed the main subjects of an address recently delivered at Edinburgh by Professor C. R. Marshall, M.D., before the Pharmaceutical Society of Great Britain, which was first published in the *Pharmaceutical Journal* of Nov. 25th, 1905, and which has been republished in pamphlet form. Dr. Marshall suggested that a pharmacopœia should contain only such drugs as are necessary for the treatment of disease and that these should be incorporated in the forms best adapted to that purpose. There is, as a rule, no advantage to be gained from the inclusion of several drugs having the same qualitative therapeutic action. In some instances, as in the case of drugs used for their bitter or astringent action, duplication seems advisable, but in these cases it is often carried to an unnecessary extent. It would be quite possible to make one pure bitter serve for all occasions provided a sufficiency of flavouring agents were available, although Professor Marshall did not go so far as to advocate such an extreme course. His objections were levelled more against the duplication of alkaloidal salts. Thus, in the newest pharmacopœia—that of the United States—two salts of strychnine, the sulphate and the nitrate, are official. These salts present no difference of therapeutic importance to justify the presence of both of them in the pharmacopœia. Another similar instance occurs in the case of pilocarpine. Both the nitrate and the hydrochloride are official and both possess identical pharmacological actions and therapeutic uses. As a general rule the hydrochloride of an alkaloid is the best salt for therapeutic use, but in this case the hydrochloride possesses the serious disadvantage of being hygroscopic. Professor Marshall mentioned another instance of duplication in the case of jaborandi, the leaves of which are official as well as a fluid extract obtained from them. Since the pharmacological action of jaborandi leaves is due solely to pilocarpine the inclusion of the leaves and extract in the pharmacopœia would seem to be unnecessary. The only advantages a preparation of a crude drug could possess over a pure principle are a gentler and more prolonged action and a more extensive compatibility. The fluid extract of jaborandi possesses neither of these advantages in any noteworthy degree, whilst, on the other hand, it has the decided disadvantage of being somewhat less certain in action, notwithstanding the fact that it is standardised in the United States Pharmacopœia. Similar instances of duplication might be pointed out in the British Pharmacopœia. Professor Marshall mentioned the concentrated liquor and the tincture of quassia, both of which preparations contain the bitter principle of one ounce of quassia in ten fluid ounces of product, and both are so similar in action that it is immaterial which of them is employed.

Professor Marshall suggested that several drugs might be deleted from the pharmacopœia without causing loss to therapeutics; indeed, in some cases a distinct gain would be the result. Of the drugs which do not possess the actions ascribed to them he mentioned sarsaparilla. It has been described by an eminent medical man as "the great restorer of appetite, flesh, colour, strength, and vigour," and is highly esteemed as a purifier of the blood. Professor Marshall did not believe that it has any such action and doubted whether its principles are absorbed from the alimentary canal. In his opinion the most serviceable ingredient of the concentrated liquor of sarsaparilla is the liquorice root. Senega affords another instance of an over-rated drug. It is largely prescribed with other remedies in certain forms of bronchitis. But the therapeutic effects of senega alone in the treatment of bronchitis are not known and pharmacological experiments do not lend much support to the view that its good effects more than counterbalance its undesirable action. In order to keep a pharmacopœia within reasonable limits Professor Marshall maintained that the only claim of a drug to admission should be either a difference in action, qualitative or quantitative, which renders the drug of greater service in therapeutics than any drug already official, or a difference in composition which makes it more generally compatible with other drugs with which it is likely to be compounded.

In regard to the simplification of preparations Professor Marshall pointed out that diluted mineral acids should be chemically equivalent in strength, because their action is due to the concentration of the hydrogen ions and to their power of neutralising bases. Mixtures might be deleted altogether, as they form the thin end of the wedge which breaks open the principle that prescriptions should be adapted to the patient and not the patient to prescriptions. What is required is more efficient teaching in prescribing in place of a multitude of preparations. Touching the question of standardisation Professor Marshall maintained that every remedial agent in a pharmacopœia should conform to a comparatively constant standard, which should, as far as possible, have reference to pharmacological activity and not merely to chemical composition. He did not advocate the adoption of directly pharmacological methods of standardisation, except in a few cases. Such methods are not suitable for inclusion in a pharmacopœia. They require the collaboration of a pharmacologist and a chemist and the necessary work should be initiated by the committees responsible for the production of the pharmacopœia and should be performed under their supervision and at their expense. In a few cases—e.g., the preparations of digitalis—the necessary pharmacological tests can be performed on simple tissues and organs. Turning to the method of expressing doses as average doses which has been adopted in the new United States Pharmacopœia, Professor Marshall preferred the British method of stating maximum and minimum doses. He mentioned quinine sulphate, the average dose of which is given in the United States Pharmacopœia as four grains, which is too large for use as a bitter and too small to be effective in malaria. He suggested that it is undesirable to give the doses for specific purposes except in the case of emetics. The British Pharmacopœia gives the dose of oil of turpentine as from three to four fluid drachms as an anthelmintic, which is too large a dose unless proper precautions are taken.

Doubtless all will agree with Professor Marshall that what is required in a pharmacopœia is simplicity with efficiency. But, on the other hand, it is possible to narrow down too finely the choice of drugs which form the offensive and defensive weapons of the physician in combating disease. Professor Marshall's desire is no doubt to eliminate the useless drugs, but at present, as he would be the first to admit, our knowledge of the pharmacological action of simple drugs is too limited to justify a too rigid exclusion from the pharmacopœia of those about which there is any doubt. It is necessary in this connexion to keep in mind the broad fact that a pharmacopœia is not compiled as a student's guide, nor is it simply written for the benefit of the physician or the pharmacist; its main object is "to afford to the members of the medical profession and those engaged in the preparation of medicines throughout the British Empire one uniform standard and guide whereby the nature and composition of substances to be used in medicine may be ascertained and determined." The pharmacopœia is thus clearly intended to insure a uniformity in the medicinal substances that are used by physicians throughout the empire. On this view it should include all those substances which are freely prescribed unless known by experiment to be valueless. For the present, therefore, it would seem undesirable to reject any drug for the simple reason that a compendious pharmacopœia "is a serious task to the medical student." But by all means let those drugs which are proved useless be deleted from the official volume.

THE SIXTEENTH ANNUAL REPORT OF THE ASYLUMS COMMITTEE AS TO THE LONDON COUNTY ASYLUMS FOR THE YEAR ENDING MARCH 31ST, 1905.

THE total number of London pauper lunatics on Jan. 1st, 1905, in asylums, licensed houses, workhouses, with relatives or friends, and in the imbecile asylums of the Metropolitan Asylums Board was 24,652, or an increase of 704 in the year. Of these only 280 were in workhouses and 152 with relatives or friends. 17,770 were in asylums and licensed houses. The increase in patients certified for asylum treatment was 640, as compared with an average annual increase for the past 15 years of 512. The committee points out, as in previous reports, that the failure of the Metropolitan Asylums Board to provide accommodation has largely increased the proportion of the insane for whom the County Council has to build. Whereas in 1890 the Board provided for 34 per cent. of the pauper lunatics in the county of London, on Jan. 1st, 1905, it only provided for 26 per cent. Had the Council now to provide for 61 per cent., as in 1890, the number to be accommodated in 1905 would have been 15,037, and on Jan. 1st, 1905, there was room for 17,060 in its asylums. The Board would, therefore, appear to be the party really responsible for the inadequacy of accommodation for London's pauper insane, although the Council is called to account in the matter. This comes of the anomaly of two public bodies providing for the insane of one area.

The ratio of pauper lunatics per 1000 of the population in the various unions and parishes in the county of London varies from 2·2 to 8·8; the Strand district stands alone with a ratio of 14·1, which is curious, but no reference is made to this large proportion. The existing nine asylums of the Council, including the epileptic colony, provided accommodation for 17,060 on Jan. 1st, 1905, whereas 18,168 patients had to be accommodated. Efforts to overtake the increasing numbers are being made by way of additions to existing asylums and the erection of two additional ones. The newest or eleventh asylum is to be entirely on the villa principle, a new departure so far as this country is concerned. Betters results are expected from the more home-like surroundings and greater facilities for classification which this method provides, whilst it is not thought that the cost of erection and administration will be greater. In common with asylums in general the London asylums have to complain of the increasing tendency to certify cases of senile decay. The subject of the discharge of relapsing cases is referred to; their recovery, although temporary, necessitates discharge, a result for which the recertification clause of the Lunacy Act is largely responsible. In this way the propagation of insanity is fostered. At one of the asylums a married female has been admitted 14 times within 21 years. The committee has made an attempt to board out patients but this proved unsuccessful owing to the cumbersome nature of the machinery provided by the lunacy law. It is rightly observed that this provision is practically a dead letter in England and Wales. It is thought possible that a number of patients might be boarded out if the Scottish procedure were adopted here.

The total number of patients admitted during the year was 3813, as against 4502 in the previous year. The recoveries were 33·59 per cent. of the admissions. The deaths were 6·76 per cent. of the total number under treatment. We agree with the committee that the tables of medical statistics need revision. As instances of existing defects may be mentioned the tables dealing with the causation of insanity, with the causes of death, and the forms of mental disorder, in which the percentage occurrence of the causes and forms is not worked out, nor is a summary provided of the tables of the different asylums, for the curious reason that these tables are not uniform. It appears that a subcommittee is considering the best method of revising these tables and it is hoped that by next year new ones can be submitted. The weekly cost of maintenance was 11*s*. 3·58*d*. The general health of the asylums appears to have been very good. The Commissioners in Lunacy refer to overcrowding as existing in certain of them, notably in Hanwell, where the numbers in excess reach 215.

Turning to items of special interest in the reports of the medical superintendents we find Dr. T. E. K. Stansfield of Bexley commenting, as in previous reports, on the hopeless character of the bulk of the admissions. He finds that hereditary taint and congenital defect become more marked year by year and considers that the free discharge from asylums of patients capable of procreation is largely responsible for this. 53·9 per cent. of the admissions showed heredity of insanity and this is considered as an under-statement of the facts. Dr. Stansfield would have the question of the "sterilisation of insanity" seriously entertained. 33 per cent. of the male and 6·5 per cent. of the female admissions gave evidence of syphilitic infection. As regards syphilis and general paralysis the statistics of six years are adduced to show that the former was present in 78·7 per cent. of the male and 70·23 of the female general paralytics. Dr. R. Jones, medical superintendent of Claybury Asylum, has made careful inquiry into the causative influence of alcohol (exciting and predisposing) and finds that this was operative in 33·7 per cent. of the males—a high proportion—and 18·3 per cent. of the females. The value of hydrotherapy is commented upon and Dr. Jones observes that the complete absence of means for applying this treatment at Claybury is remarked upon by foreign visitors.

From the second annual report of Dr. C. H. Bond, the medical superintendent, it appears that the recently opened epileptic colony of the Council is fulfilling its primary purpose and, furthermore, there are already grounds for the belief that the sale of the produce of the colonists' work will reduce the cost of maintenance. The daily average number resident was 301 and 94 cases were admitted, of which 25 were direct admissions, the remainder being transfers from other asylums. Out of 91 admissions 54 showed heredity of insanity or epilepsy or alcoholism. Dr. Bond refers to the totally inadequate provision which is made for the sane epileptic, epilepsy *per se* not being recognised as requiring State control or even State cognisance. The patients at the colony are well employed, chiefly in farm and garden work, shoemaking, tailoring, basket-making, and domestic work.

The report of the director of the pathological laboratory and pathologist to the asylums (Dr. F. W. Mott) deals, amongst other matters, largely with the topics of tuberculosis, dysentery, and diarrhœa in the asylums. Dr. Mott has formed the opinion from examination made at two of the latter that the great majority of those who die with active or obsolescent tubercle show the disease on admission. The number of cases of dysentery at the asylums remains practically the same as last year when a marked improvement on all preceding years was shown. The report contains some interesting observations upon heredity and insanity. Dr. Mott considers that no trustworthy statistics of the relation between heredity and insanity will be forthcoming until a series of family trees is collected showing the temperament and life-history of males and females for at least three generations. Data collected from asylums and also from the general population should be investigated by a statistical expert. Work has been carried on by Dr. Mott and Dr. G. A. Watson, the assistant pathologist, upon the visual cortex and the minute structure of the cortex cerebri in the lower animals.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on Dec. 14th, Mr. JOHN TWEEDY, the President, being in the chair.

The SECRETARY reported the death, on Nov. 21st, of Mr. John Croft, past member of the Council and of the Court of Examiners. It was resolved:—

That the Council do hereby record their deep regret at the death of their former colleague, Mr. John Croft, and their sincere sympathy with his widow in her bereavement. The Council do also record their appreciation of the services rendered by Mr. Croft to the College in the conscientious discharge of the several duties which devolved upon him as a member of the Council and of the Court of Examiners.

It was resolved to issue diplomas of Fellowship to the 23 candidates found qualified.

It was resolved to issue Licences in Dental Surgery to the 42 candidates found qualified.

On the recommendation of the Board of Examiners in Dental Surgery it was resolved to recognise the dental

practice of the Leeds Public Dispensary as fulfilling the requirements of Clause 7, Section I., of the regulations for the licence in dental surgery.

Mr. G. H. Makins was re-elected and Mr. W. Bruce Clarke was elected a member of the Court of Examiners.

Mr. Tweedy was appointed, in place of Sir Henry G. Howse who retires, a member of the Court of the University of Liverpool for three years.

Mr. H. T. Butlin was appointed, in place of Sir Henry G. Howse who retires, a member of the Court of Governors of the University of Birmingham for three years.

A letter was read from Mr. Henry Morris reporting the proceedings of the General Medical Council at the recent session. The letter was received and entered on the minutes and the best thanks of the Council were given to Mr. Morris for his services as the representative of the College in the General Medical Council.

A letter was read from Mr. Charles Aitken, director of the Whitechapel Art Gallery, asking for the loan of the portrait of Sir Cæsar Hawkins by Hogarth, for an exhibition illustrating "Georgian England," to be held in that gallery for six weeks during March and April, 1906. It was resolved to grant the request.

The PRESIDENT reported the delivery of the Bradshaw lecture by Mr. H. T. Butlin on Dec. 13th, the subject of the lecture being "Carcinoma is a Parasitic Disease." The best thanks of the Council were given to Mr. Butlin for his lecture and he was requested to publish it.

A report was received from the committee on the Fellowship regulations. The changes suggested do not alter in any way the course of study required for the Fellowship. The main object is to make the conditions of admission to the first examination fair to all candidates. The report was approved and adopted.

Looking Back.

FROM

THE LANCET, *SATURDAY*, Dec. 22nd, 1827.

ON A PRETERNATURAL SIZE OF THE MOUTH.

Christian Weknstedt was born with a very large mouth, and, in his seventeenth year, the transverse diameter of the mouth amounted to six inches and a half. The mother believed that the child had been born with its foot in the mouth; but as this was not observed at the time, it does not appear very probable. The tongue was so large, that it always hung between the teeth, and, according to the mother, was in that position at the time the child was born. To what cause could this unusual size of the mouth be attributed? Professor Langenbeck conceives, that the size of the tongue prevented the complete formation of the mouth, since it extended from one ear to the other, just as in the seventh week of pregnancy. By the removal of the callous edges of the more internal parts of the mouth, and the use of sutures, this part of the body was restored to its natural size and shape.*

TO CORRESPONDENTS.

Several students belonging to the St. Bartholomew's and Webb-street Schools, complain of the disgusting conduct during lecture, of four or five ignorant puppies, who are constantly annoying the class by throwing pieces of paper, orange peel, and other missiles, at such pupils as are desirous of attending to the discourse of their teachers. Why not give the fellows a ducking under the pump? At all events, if the nuisance should be continued, we will publish the names of the offending parties.

THE LANCET.

On Saturday, Jan. 5, 1828, a STAMPED EDITION of this Journal will be published, (price 1*s.*) which may be sent, FREE OF POST, to any part of the kingdom; also to the BRITISH COLONIES, on payment of *three half-pence*, at the General Post-Office. Orders for this edition should be forwarded, as quickly as possible, to the London *Newsmen*.

* Langenbeck's Bibliothek, vol. iv., pt. 3.

THE LEAGUE OF MERCY.

LORD MANSFIELD presided over the sixth annual meeting of the presidents of the League of Mercy which was held at the Westminster Hospital on Dec. 15th. Lord Mansfield was appointed chairman for the ensuing year, Mr. Frederick Green (Romford) deputy-chairman, and Mr. Hay-Forbes honorary secretary. The following were elected to serve on the executive council: Lord Mansfield, Lord Farquhar, Mr. R. C. Antrobus, Mr. Frederick Green, Mrs. R. L. Harrison, Mrs. Buxton Morrish, and Mr. Montagu Sharpe.

Sir HENRY BURDETT said that the League might be congratulated on having raised more money during the year than in the previous year. 50 districts had collected over £100 each, Fulham heading the list with £1166, as against £1068 in 1904. The maximum amount anticipated from each district was £1200. South Kensington came second, with £1135, the sum for 1904 being over £1200. Then came the combined district, consisting of the counties of Berkshire, Bucks, Oxford, and Hants, which was under the presidency of Princess Victoria of Schleswig-Holstein, with £1048. Paddington was next with £962, as against £780 in 1904. The City of London contributed £188, including £25 from the Carpenters' Company. The total amount raised by the organisation was £17,500, an increase of £1000 on the previous year's total, and it had been decided to increase their grant to King Edward's Fund from £14,000 to £15,000.

Sir WILLIAM COLLINS referred to the substantial progress which had been made by the League of Mercy during the year and said that new districts had been opened and increased interest awakened in those where organisation already existed. The total sum collected by the League since its establishment was £61,000.

Votes of thanks to the anthorities of Westminster Hospital and to the chairman concluded the proceedings.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held at 6, Suffolk-street, Pall Mall, London, on Dec. 14th, Dr. F. H. CHAMPNEYS being in the chair. Dr. J. WARD COUSINS had drafted the following "Proposed Suggestions for the Guidance of the Medical Advisers of the Local Supervising Authorities respecting the Duties of Inspectors Appointed to Exercise General Superintendence over Midwives," but these were not discussed because Dr. Ward Cousins was not present at the meeting:—

1. The inspector should obtain a personal knowledge of the midwives practising within the area, and should regularly inspect their homes, so as to insure the practice of domestic cleanliness and attention to sanitary details in their clothing and appliances.

2. She must strictly investigate the antiseptic precautions taken by the midwives to prevent the entrance of infectious diseases into the lying-in room; and also the facilities for the disinfection of the women and their clothing after exposure to any puerperal disorder.

3. She should be always ready to give assistance to the midwives in the discharge of their duties, and to explain to the untrained women on the local roll their obligations and responsibilities as certified midwives practising under the regulations and restrictions of the Midwives Act of 1902.

4. She must inspect the books which have to be kept by the midwives, containing full particulars of their cases, for the purpose of helping them in making the necessary entries and completing the records with regularity, so that they may be always ready to be submitted to the medical adviser of the local authority.

5. She will be expected to aid in maintaining a correct local roll and also to report to the local supervising authority without delay any charge of inattention, misconduct, or malpractice on the part of any midwife.

The Board considered communications from sundry local supervising authorities reporting the finding of *primâ-facie* cases of negligence and misconduct against certain midwives and in most of these instances resolved that the midwife concerned was to be cited to appear before the Board.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.—As a result of the collections on Hospital Sunday, which was observed in Plymouth on Oct. 29th, the sum of £813 has been forwarded to the treasurer of the South Devon and East Cornwall Hospital.

THE IMPORTANCE OF LONGER HOURS OF SLEEP AT PUBLIC SCHOOLS.

IT may be remembered that on July 15th of this year we published in THE LANCET an interesting paper by Dr. Theodore Dyke Acland upon this subject. A letter signed by 15 medical men, every one of whom can speak as an authority upon the matter from one point of view or another, appeared on Wednesday last in the *Times*, calling attention to the harm done by giving too little sleep to boys. The signatories are: Dr. T. D. Acland, Professor T. Clifford Allbutt, Sir Thomas Barlow, Sir William Broadbent, Sir T. Lauder Brunton, Sir J. Crichton-Browne, Sir R. Douglas Powell, Sir Dyce Duckworth, Dr. Clement Dukes (medical officer to Rugby School), Dr. J. F. Goodhart, Dr. T. B. Hyslop, Professor W. Osler, Dr. G. H. Savage, Dr. C. E. Shelly (consulting medical officer to Haileybury College), and Professor C. S. Sherrington.

Dr. Acland's paper, which was recently read at the annual meeting of the Council of the Medical Officers of Schools Association, has now been sent to the headmasters and the chairmen of the governing bodies of all the principal schools in the country and we may expect that the question will receive serious attention. The difficulty of laying down hard-and-fast rules is obvious, if only because boys are often older or younger than their years, but it ought not to be impossible to arrive at a general conclusion that between certain ages a certain minimum of sleep should be granted to the schoolboy. And in our view the minimum should err on the generous side.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 76 of the largest English towns 8179 births and 5076 deaths were registered during the week ending Dec. 16th. The annual rate of mortality in these towns, which had been 17·9, 16·7, and 16·1 per 1000 in the three preceding weeks, rose again to 17·0 per 1000 last week. In London the death-rate was 19·2 per 1000, while it averaged 16·0 per 1000 in the 75 other large towns. The lowest rates in these towns were 9·0 in Burton-on-Trent and in King's Norton, 9·3 in Hornsey, 9·5 in Bournemouth, 9·9 in St. Helens, 10·2 in Croydon, and 10·7 in Reading and in Tynemouth; the highest rates were 20·2 in Tottenham, 20·7 in Middlesbrough, 20·8 in Bootle, 21·1 in Liverpool, 21·2 in Halifax, 22·6 in Hanley, and 27·0 in Preston. The 5076 deaths in these towns last week included 389 which were referred to the principal infectious diseases, against 355, 385, and 372 in the three preceding weeks; of these 389 deaths, 125 resulted from measles, 83 from whooping-cough, 57 from diarrhœa, 54 from scarlet fever, 48 from diphtheria, and 22 from "fever" (principally enteric), but not any from small-pox. In Brighton, Northampton, Norwich, Coventry, Wigan, York, and 11 other smaller towns no death from any of the principal infectious diseases was registered, while they caused the highest death-rates in Bristol, Wolverhampton, West Bromwich, Birmingham, Bootle, Blackburn, Preston, Leeds, and Middlesbrough. The greatest proportional mortality from measles occurred in Bristol, Blackburn, Preston, Barrow-in-Furness, and Leeds; from scarlet fever in St. Helens; from diphtheria in Rochdale; from whooping-cough in Devonport, West Bromwich, Bootle, Warrington, and Gateshead; and from diarrhœa in Reading, Middlesbrough, and Cardiff. The mortality from "fever" showed no marked excess in any of the large towns. No death from small-pox was recorded last week in any of these towns and no case of this disease was under treatment last week in the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital on Saturday, Dec. 16th, was 3670, against 4127, 4021, and 3888 on the three preceding Saturdays; 341 new cases were admitted during the week, against 470, 375, and 355 in the three preceding weeks. The deaths in London referred to pneumonia and diseases of the respiratory system, which had been 490, 478, and 376 in the three preceding weeks, rose again last week to 460 but were 27 below the number in the corresponding period of last year. The causes of 45, or 0·9 per cent., of the deaths in the 76 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Leicester, Salford, Bradford, Leeds, Hull, Newcastle-on-Tyne, and in 46 other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Wallasey, Liverpool, Rochdale, Preston, Sheffield, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in eight of the principal Scotch towns, which had been 21·9, 18·7, and 19·9 per 1000 in the three preceding weeks, declined again to 18·2 per 1000 during the week ending Dec. 16th, but was 1·2 per 1000 in excess of the mean rate during the same period in the 76 large English towns. The rates in the eight Scotch towns ranged from 14·1 in Leith and 15·6 in Aberdeen to 21·0 in Dundee and 23·8 in Greenock. The 609 deaths in these towns included 31 which were referred to measles, 18 to diarrhœa, six to whooping-cough, four to scarlet fever, three to diphtheria, and two to "fever." In all 64 deaths resulted from these principal infectious diseases last week, against 84, 61, and 77 in the three preceding weeks. These 64 deaths were equal to an annual rate of 1·9 per 1000, which was 0·6 per 1000 above the mean rate last week from the same diseases in the 76 large English towns. The fatal cases of measles, which had been 48, 33, and 45 in the three preceding weeks, declined again last week to 31, of which 15 were registered in Glasgow, 11 in Dundee, and three in Greenock. The deaths from diarrhœa, which had been 14, 14, and 11 in the three preceding weeks, rose again to 18 last week, and included nine in Glasgow, four in Aberdeen, and two in Paisley. The fatal cases of whooping-cough, which had been ten, six, and eight in the three preceding weeks, declined again last week to six, of which two were registered in Glasgow. The deaths from scarlet fever, which had been one, three, and seven in the three preceding weeks, declined again to four last week and included three in Greenock. The fatal cases of diphtheria, which had been five in each of the two preceding weeks, declined last week to three. The deaths referred to diseases of the respiratory organs in these towns, which had been 159, 148, and 126 in the three preceding weeks, further fell last week to 117 and were 39 below the number in the corresponding period of last year. The causes of 23, or nearly 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 22·7, 20·4, and 22·0 per 1000 in the three preceding weeks, declined again to 19·7 per 1000 during the week ending Dec. 16th. During the past four weeks the death-rate has averaged 21·2 per 1000, the rates during the same period being 18·3 per 1000 in London and 16·8 per 1000 in Edinburgh. The 143 deaths of persons belonging to Dublin registered during the week under notice were 17 below the number in the preceding week and included five which were referred to the principal infectious diseases, against seven, seven, and eight in the three preceding weeks; of these, two resulted from whooping-cough and one each from diphtheria, from "fever," and from diarrhœa, but not any from small-pox, measles, or scarlet fever. These five deaths were equal to an annual rate of 0·7 per 1000, the death-rates last week from the principal infectious diseases being 1·5 in London and 0·5 in Edinburgh. The 143 deaths in Dublin last week included 32 of children under one year of age and 42 of persons aged 60 years and upwards; the deaths of infants corresponded with the number in the preceding week, while those of elderly persons were slightly in excess. Two inquest cases and two deaths from violence were recorded, and 54, or more than a third, of the deaths occurred in public institutions. The causes of nine, or more than 6 per cent., of the deaths registered in Dublin last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

IN accordance with the provisions of Her late Majesty's Order in Council of April 1st, 1881, Surgeon John Wilfred Bird has been allowed to withdraw from His Majesty's Naval Service with a gratuity.

The following appointments are notified:—Fleet Surgeon A. G. Wildey to the *Indus*. Staff Surgeons: T. T. Jeans to the *Europa* and C. S. Facey to the *Aryyll*. Surgeons: A. F. Mackay to the *Dwarf*; T. E. Blunt to the *Thames*, for the *Hazard*; E. Folliott to the *Virid* for Devonport Dockyard; and A. C. Renwick to the *Indus*.

ROYAL ARMY MEDICAL CORPS.

The establishment of surgeon-generals, Army Medical Service, has been reduced to nine, it having been decided that the vacancy caused some time ago by the transfer of Surgeon-General W. L. Gubbins, C.B., from the Western to the Eastern Command (India) shall be constituted employment for an officer of the Indian Medical Service.

Colonel Alexander W. Duke is placed on retired pay (dated Dec. 18th, 1905). Lieutenant-Colonel Brisbane W. Somerville-Large retires on retired pay (dated Dec. 20th, 1905).

INDIAN MEDICAL SERVICE.

The King has approved of the following promotions among officers of the Indian Medical Service:—To be Colonel: Bengal: Lieutenant-Colonel George Jerome Kellie (dated Oct. 16th, 1905). Majors to be Lieutenant-Colonels: Bengal (dated Oct. 1st, 1905): Henry Robert Woolbert, George Henry Baker, Joseph Rosamond Adye, Arthur Charles Younan, Alfred William Alcock, C.I.E., and John Macfarlane Cadell. Lieutenants to be Captains (dated Sept. 1st, 1905): John Hanna Murray, Frederic Percival Mackie, Arthur Tregelles Pridham, Frank Powell Connor, John O'Leary, Samuel Rickard Christophers, Harry Emslie-Smith, Hugh Reginald Dutton, Vincent Blumhardt Nesfield, Henry Martyn Brown, Arthur Frederick Pilkington, Philip George Easton, Wilfred Wynne Jeudwine, Thomas Charles McCombie Young, George Adam Jolly, Henry Coddington Brown, George Harold Lawson Whale, Abdurrahman Khan Lauddie, Walter Julius Collinson, Cuthbert Lindsay Dunn, Herbert Michael Henry Melhuish, Horace Harvard Kiddle, Richard Francis Chetwynd Talbot, Raghuber Dayal Saigol, Cecil Edward Bulteel, John Lumsden Lunham, Frederick Colin Rogers, Maung Ba-Ket, and Clayton Alexander Francis Hingston.

The King has approved of the retirement from the service of the under-mentioned officers:—Colonel John Thomas Brownrigg Bookey, C.B. (dated June 16th, 1905); Colonel John McConaghey (dated July 12th, 1905); Colonel Mathew Denis Moriarty (dated Oct. 26th, 1905); Colonel James Sutherland Wilkins, D.S.O. (dated Nov. 11th, 1905); Lieutenant-Colonel John Lewtas (dated Nov. 21st, 1905); Lieutenant-Colonel James Crofts (dated July 15th, 1905); Lieutenant-Colonel Robert Richard Harvey Whitwell (dated Sept. 17th, 1905); and Lieutenant-Colonel Frederick Arthur Rogers, D.S.O. (dated Dec. 16th, 1905).

The King has also approved of the resignation of the service by the undermentioned officers:—Captain Ian Lamont McInnes (dated July 28th, 1905) and Captain John Alfred Barnes (dated Dec. 9th, 1905).

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Major Thomas Philip to be Surgeon-Lieutenant-Colonel (dated Dec. 4th, 1905).

VOLUNTEER CORPS.

Rifle: 1st (Hertfordshire) Volunteer Battalion the Bedfordshire Regiment: Surgeon-Lieutenant C. F. Wightman resigns his commission (dated Dec. 20th, 1905); Cecil Frank Wightman (late Surgeon-Lieutenant) to be Second Lieutenant (dated Dec. 20th, 1905). 1st Volunteer Battalion the Durham Light Infantry: Surgeon-Lieutenant-Colonel and Honorary Surgeon-Colonel G. Middlemiss resigns his commission, with permission to retain his rank and to wear the prescribed uniform (dated Dec 20th, 1905).

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Scottish Command: Aberdeen Companies: Lieutenant P. Mitchell to be Captain (dated Dec. 20th, 1905).

WAR OFFICE CHANGES AND ARMY ORGANISATION.

The appointment of Mr. Haldane to the post of Secretary of State for War in the new Government is generally recognised as a good one. It has been followed by another of considerable practical importance—namely, that of General Sir William Nicholson as Quartermaster-General of the Forces and a Military Member of the Army Council. As everybody knows, there are very many questions of Imperial interest connected with the organisation of His Majesty's forces which have to be settled at the present time and among them we venture to think that what is to be the nature and extent of the medical aid to be provided in any future war must take a prominent place. It cannot be denied that in Sir William Nicholson the nation is getting the right man in the right place at the War Office, because he can bring before the Army Council the results of his personal experience of the methods of modern war in South Africa and Manchuria. Sir William Nicholson is not only a soldier with a big and very distinguished record of war service, but he has the reputation of being also an able organiser and an officer of broad, bold, and original views.

THE EX-WAR MINISTER AND ARMY REFORM.

Mr. Arnold-Forster has laid down the reins of office after having had a very strenuous and, on the whole, thankless time of it at the War Office. That he brought self-reliance, earnestness, and the courage of his convictions to his work, and that he had a clear and probably very correct idea of some of the general principles by which he was guided cannot be doubted; but apart even from the great difficulties of the situation, it seems hopeless for any civilian to undertake any big measure of army reform unless backed by some very powerful and competent military opinion. We do not think that the late War Minister had really formed, much less framed, any adequate measure for meeting all the medical requirements of modern war. These have thoroughly to be thought out and provided for in time of peace if we are to avoid the recurring evil of that initial unpreparedness for war which so often wrecks our systems of procedure on actual service. Still, no War Minister before Mr. Arnold-Forster's time had succeeded in doing that. In a number of other respects, however, it is only fair to say that several great and important changes were introduced during his term of office.

LORD ROBERTS'S SCHEME.

That Lord Roberts by his energy and strenuous efforts to overcome the difficulties of army reform is doing good service cannot, we think, be doubted. Whether people agree with his scheme in its entirety or not, his proposals so far as the training in schools is concerned can only do good in improving the health and physique and in inculcating habits of obedience and self-reliance in boys taking part in such training. We have no doubt that at any rate when most of these become 18 or 21 years of age they will voluntarily join in defence of this country by taking their place in some corps or other.

The Government of India has sanctioned the re-organisation of the Army Hospital Corps on a divisional (or independent brigade) basis and adminstrative measures to that effect have been issued.

Correspondence.

"Audi alteram partem."

CARCINOMA IS A PARASITIC DISEASE.

To the Editors of THE LANCET.

SIRS,—In his recent Bradshaw lecture Mr. H. T. Butlin argues that the carcinoma cell, which has generally been regarded as an epithelial cell having, under some malign influence, parasitic or other, gone wrong, is neither more nor less than itself a parasite, "an independent organism, like many a protozoon," living "a life which is wholly independent and proper to itself," a parasite, moreover, not as one would expect a parasite to be, introduced from without, but, *mirabile dictu*, "actually formed and developed within the body of the host." The first two arguments which the lecturer advances against the cancer cell being introduced from without—arguments to me, at least, entirely convincing—can, I would submit, be used with equal cogency against its suggested origin as a parasite from within. I refer to the morphological resemblance of the cells to normal epithelial cells—

squamous, spheroidal, cylindrical—and their tendency to arrange themselves in definite ways so as to form with the stroma glandular tissue of a complex type. No hint is given as to how, or where, the parasite is formed nor how it comes by its wondrous powers; and I therefore venture, in fear and trembling it must be confessed and with all the respect due from an old and honouring pupil, to fill up, in the only way in which it seems possible, the hiatus which the eminent lecturer has left in his argument, with the result, as I believe, of weakening if not destroying that argument.

If the alleged parasite is derived from the host it must, on the principle of "every cell from a cell," be from a pre-existing cell of the host, and although the lecturer makes a point of insisting that there is no direct evidence that "the cells of the youngest carcinoma are derived from the cells of the part in which it first appeared," the likeness of the cancer cells—squamous, spheroidal, cylindrical—to the epithelial cells belonging to the primary site surely compels the inference that, if the presumed parasite is formed within the body of the host, it is from some one (or more) of these cells. No alternative supposition presents itself. Accepting, then, the view of autogenetic parasitism, as enunciated by the lecturer, one seems driven to the conclusion that an epithelial cell either itself reverts, or in some way or other gives origin, to a cell of the protozoon type. Such a hypothesis is perfectly intelligible and well worthy of consideration. Let us see if it fits the facts of the case. An epithelial cell has many of the characters of a protozoon, and it is conceivable that under the lowered conditions of vitality resulting from senility (local or general) and irritation a cell might be hatched which, like the criminal in our midst—himself a reversion to a more primitive type—should refuse subservience to the body politic, and defying the laws binding upon every citizen of a complex community, pursue an independent course, with disaster alike to the wrongdoer and to the community at large. It will be observed that on this view the most tragic and difficult event in the whole terrible drama is the genesis of the initial parasite cell. In its absence all is well, but when once formed it tends to multiply with fatal persistence, even in the tissues of young subjects wholly incapable of generating it, as shown by the fact that while, e.g., among mice only the old ones are capable of developing carcinoma spontaneously, young ones can be readily inoculated with the disease. The fact that "carcinoma grows by a multiplication of its own proper cells and not by a transformation of neighbouring cells into cancer cells" lends further support to the view that the entire growth is derived from a single cell, or at least a limited number only.

So far, so good. But if we are to assume that the carcinoma cell has cast aside all those specific properties which belong to it as a member of a complex multicellular organism and has been degraded to the rank of a common protozoon, how are we to account for its specialised morphology and morphological tendencies; how explain the fact that it is often indistinguishable in appearance from an epithelial cell—squamous, cylindrical, or other; how account for its ability to form such a complex glandular tissue as is presented by the cylindrical-celled cancer? Is not this asking too much of the protozoon? To this it may be replied that, without going the length of regarding the carcinoma cell as belonging to so degraded a type as a protozoon, it is still possible to regard it as a partial reversion to such a type, and as having in this way acquired quasi-parasitic properties, though still retaining many of the properties which belong to it as forming part of a multicellular organism. Such a view would, however, carry us little further than the conception of the cell of carcinoma "as a normal epithelial cell which has escaped from the bondage of the laws which confine such cells and has, so to speak, run wild."

Mr. Butlin argues his remarkable thesis with his wonted dialectical and literary skill and finishes by boldly proclaiming it as a truth, as, indeed, he sets out by doing in the very title of his lecture. Carcinoma, he tells us, is a parasitic disease. Unfortunately, it is just on those points in regard to which we most desire him to inform us that he is most tantalisingly silent. We want to know from what species of cell he derives the carcinoma cell, how and why it becomes a parasite of the protozoon type, and how such a parasite comes to display characters and tendencies belonging to highly specialised epithelial cells.

I am, Sirs, yours faithfully,

Wimpole-street, W., Dec. 17th, 1905. HARRY CAMPBELL.

VARICOCELE—WHAT OF IT?

To the Editors of THE LANCET.

SIRS,—Whilst examining recruits for the Sixth New Zealand Contingent I drew attention to the frequency of this condition. Except for special supernumeraries such as buglers, veterinary and ambulance orderlies, the standards were a minimum of 5 feet 7 inches for height and a chest measurement of not less than 36 inches on full expansion. So numerous were the applicants for service in South Africa that full advantage was taken of the medical test followed by an even more rigorous riding test to whittle down the number of recruits so as not to exceed the number allotted to each province. It was found, however, that if one insisted on rejecting a man solely on account of varicocele one must exclude some men of fine physique, not a few of whom had a record either for athletics, good horsemanship, bushcraft, previous service, or good marksmanship.

During a year's service with Plumer's Force, made up for the most part of Australian bushmen and Maorilanders, I can only recall one man complaining of the ill-effects of varicocele. This man, a Fifth Q I.B., suffered from a large left varicocele. Occasionally it caused him much trouble and sometimes actual pain on mounting his horse. Although all sorts of excuses for "going sick" were resorted to by "the weary Willies and tired Tims," who were soon "fed up" with constant trekking by day and outpost duty by night—even to the eating of cordite[1]—I never remember "a painter" (a New Zealander's way of speaking of a comrade who preferred a rest camp or remount depôt to the front) alleging that a varicocele was sufficient to warrant him being sent down to the base. The possession of a varicocele has been known to disqualify a man for Government employment but not to prevent him being a New Zealand representative footballer. In examining candidates for insurance in the New Zealand Government State Insurance Office notice is always taken of varicocele. I cannot, however, recall the case of any man having been refused as a "first-class life" merely on account of varicocele nor do I remember any man being "loaded" solely on that ground. The impression formed in New Zealand and South Africa as to the relatively greater frequency of varicocele in the Australian colonies was strengthened to some extent by my experience at the London Lock Hospital whilst collecting statistics for Dr. Arthur Keith and Mr. Arthur Shillitoe on the incidence of hypospadias in a series of 500 out-patients.[2] It is worth noting as bearing on the present discussion that varicocele is stated to be very rare in the Highlands. The wearing of kilts and loose clothing is said to have the effect of keeping the testicles well braced. The South African natives who have retained their primitive costume—or, rather, lack of costume—do not suffer from this condition, as far as I remember. The wearing of tight riding breeches, waist belts, the dressing of the testicles to the left side, and the frequency of habitual constipation may have some effect in causing varicocele in young colonials from "away back."

It is a fact, however, that the admission of some recruits with varicocele, sufficient to have rejected them from a regular regiment, did not interfere with the physical fitness of the colonial irregular corps. The possession of a few artificial and filled teeth also did not prevent some of our men seeing over two years' service at the front. On the few occasions on which we had regimental sports our men carried all before them, especially at football. Consequently, as far as minor defects, such as varicocele, were concerned, it would have been a pity to have thrown out some good horsemen and shots—men who had spent years in the bush and who after six months or so were almost as good at mounted infantry work as some of the Boer commandoes who remained in the field until the end of the war.

I am, Sirs, yours faithfully,

J. S. PURDY, M.D., C.M. Aberd., D.P.H. Cantab.,
Surgeon-Captain, New Zealand Militia.

Quarantine Service, Port Said.

*** Dr. Purdy's interesting letter was not received until after we had summed up the correspondence upon this subject in a leading article. His views are those of the majority of the medical profession and agree with our own. —ED. L.

[1] Gleanings from South Africa, New Zealand Medical Journal, 1902.
[2] THE LANCET, Jan. 16th, 1904, p. 146: "The Prepuital or Odoriferous Glands of Man."

TOXICITY OF URIC ACID.

To the Editors of THE LANCET.

SIRS,—Dr. Alexander Haig in the last issue of THE LANCET differs from the opinion that I expressed in my recent address to the Harrogate Medical Society that uric acid possesses no toxic properties whatever. The experiments of Sir A. B. Garrod and others, who administered considerable doses of uric acid or its salts with no very marked toxic effect, are discredited by Dr. Haig on the theoretical assumption that the uric acid was "caught up and retained in the liver, skin, and other tissues," where it was unable to exert its toxic effects. May I ask what proof there is in support of this assumption? I am unable to accept the capillary reflux time or the blood decimal of Dr. Haig as evidence of or against either the presence of uric acid in the blood or its toxicity, while his statements as to the heightened blood pressure due to uric acid are entirely opposed to the most recent investigations on the subject. Dr. I. Walker Hall's experiments, detailed in his book on "The Purin Bodies," show that the blood pressure is not altered by purin bodies, of which uric acid is one.

In support of my belief that uric acid possesses no toxic properties I would adduce the following facts: (1) animals have been made to ingest large quantities of uric acid with their food and urates in solution have been freely injected into their veins without eliciting any signs of poisoning; (2) Filshne in his experiments on frog's muscles found that muscle rigidity and tetanus were produced by hypoxanthin but that uric acid was inert; (3) after carefully searching the literature on the subject the only evidence that I can find of discomfort following the ingestion of uric acid is the statement by Dr. Walker Hall, who, after taking large doses of uric acid, had malaise and headache lasting for several hours. Almost any substance, however (common salt, for example), will produce toxic effects if taken in very excessive quantities. In support of my opinion, as expressed in my Harrogate address, that the deposition of sodium biurate is merely the sign of gout, not the essence of it, and that therefore it should be regarded rather as a symptom than a causative factor, I take the following quotation from Dr. Walker Hall's book on "The Purin Bodies": "Uric acid is a necessary result of normal nuclein metabolism. In disease it is symptomatic of conditions which hinder or prevent its solubility and excretion, and does not itself cause the lesions which accompany uricacidæmia." I am, Sirs, yours faithfully,

Queen Anne-street, W., Dec. 16th, 1905. ARTHUR P. LUFF.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Dec. 16th Dr. Alexander Haig has shown once more that a purin-free diet systematically persisted in is capable of freeing many patients from a long series of morbid manifestations. He infers that the manifestations dispersed in such cases depend upon the toxic influence of uric acid dissolved in the circulating fluid. Dr. Haig's facts may be admitted. A purin-free diet has now been shown by many to have the capacity claimed, nor can it be questioned that the amount of circulating uric acid is coincidently reduced. But the inference that the former depends upon the latter would not necessarily follow unless it could be shown that the diet which he advocates implies no change other than the reduction of uricæmia. Now there can be no doubt that the enjoinment of a purin-free diet involves at least one incidental change of great importance.

Dr. F. C. Eve, writing in the *Practitioner* for December, points out that Haig's purin-free diet, vegetarianism, the practice of a prohibitive prolongation of mastication advocated by van Someren, and the dietetic system of Chittenden, all involve a material *diminution in the proteid intake*, and that all have been found beneficial in the same group of affections. In the "Food Factor in Disease"[1] I have given in some detail a long series of cases which go to show that the same group of affections may be successfully treated (often with great rapidity) by a plan of diet which of necessity increases the proteid and purin intake but which materially *diminishes the total carbonaceous intake*. We are therefore brought to face the following problem: What common effect can be produced on the blood by a diminution of the proteid intake and by a diminution of the carbonaceous intake? The answer is that both tend to diminish the income to the blood of unoxidised carbonaceous material or fuel, the one by retarding the processes of digestion and absorption, the other by directly reducing the supply of material. It follows that the group of affections referred to—namely, migraine, asthma, gout, high blood pressure, &c.—depend in many cases upon an excess of fuel, not upon an excess of "ashes" in the blood. And it will be found that many such affections, especially those which are markedly intermittent or periodic, are well adapted to disperse the excess upon which they depend. They may thus be regarded as "pathological functions."

I am, Sirs, yours faithfully,

London, W.C., Dec. 18th, 1905. FRANCIS HARE.

[1] Longmans, Green, and Co., 1905.

INSTRUCTION BY POSTER.

To the Editors of THE LANCET.

SIRS,—Under the heading of "Medicine and the Law" in THE LANCET of Oct. 26th, a paragraph on Instruction by Poster refers to the course taken by Lambeth of issuing posters giving extracts from the findings of the Inter-departmental Committee on Physical Deterioration, so far as they bear on the evil effects of alcoholism. That paragraph, in addition to questioning the utility of this course, raises a question as to whether such a course is properly within the functions of a sanitary authority. I had expected that some comment would have followed that paragraph in your Correspondence columns.

It may readily be conceded that the effect produced by such posters may be less than that desired, but that posters do have a great effect in influencing the public mind is fully proved by the enormous sums which large firms are willing to spend yearly on advertising posters. Unless some such course as this be adopted the weighty findings of that important committee will remain within their blue covers and the general populace will have no chance of knowing of them.

The paragraph concedes that a sanitary authority is acting within its proper functions in adopting this method of advertisement against expectoration in the streets. Most active sanitary authorities adopt the advertisement plan, either by posters or circulars, concerning many other things—e.g., infant feeding, infectious diseases, and numerous other matters which may influence health. The paragraph does not make clear to my mind why a sanitary authority should stop short at the evil effects of the abuse of alcohol; many other authorities besides Lambeth have adopted this course, and to anyone practically acquainted with the poverty and insanitary conditions of great cities it is almost irrefutable that poverty, insanitary surroundings, filth, misery, overcrowding, ill-health, and death are much more intimately associated with the evil effects of alcohol than is any amount of expectoration in the streets. Why, then, should a sanitary authority regard the latter as coming within its purview and leave the former, as suggested in the paragraph, to benevolent associations or philanthropic individuals?

I am, Sirs, yours faithfully,

Coventry, Dec. 15th, 1905. E. H. SNELL.

A CASE OF CLAY-COLOURED STOOLS WITHOUT JAUNDICE BUT ATTENDED WITH COPIOUS BILIOUS VOMIT.

To the Editors of THE LANCET.

SIRS,—I cannot agree with Mr. A. W. Mayo Robson that a microscope is required to prove that bile enters the alimentary canal in a case characterised by copious vomiting of bile or that exact analysis is needed to show that the normal output of stercobilin in the fæces is reduced when the freshly passed motions, although pale enough to show any faint shade of colour, have not the slightest tinge of brown. But my failure to imagine that stools which contain anything like the normal amount of stercobilin can become "white" *simply from solidification of fat on cooling* does not arise merely out of this case. Unusually strong proof would be necessary to convince me that in any case a stool such as I describe, pale cream-coloured when passed, contains as much unaltered rich, brown pigment as a normal motion of the same size. Perhaps I am unusually unimaginative. If Mr. Mayo Robson has already published such a proof I must ask him to forgive my having overlooked it.

If he has not yet published it I hope he will do so, as the point is of importance. Of course, such a stool may contain some colourless decomposition product of bile pigment, but that is not suggested in the passage I have quoted. The question is one of *colour*.—I am, Sirs, yours faithfully,

Exeter, Dec. 15th, 1905. W. GORDON.

THE PROPOSED AMALGAMATION OF THE LONDON MEDICAL SOCIETIES.

To the Editors of THE LANCET.

SIRS,—In the proposed scheme as adopted at the meeting of the general committee of representatives of the societies held on July 19th it is suggested that "every member of the societies which amalgamate shall have the option of joining the new society, subject to the rules of the said society, without entrance fee, and that as far as possible members of these societies shall retain their present privileges in the new society." This is quite satisfactory, but the paragraph then goes on to say: "For example, any Fellow of the Royal Medical and Chirurgical Society who has compounded for his subscription will be entitled to join the Royal Society of Medicine *as a Fellow* without further payment of any kind, and a member of any society who has compounded for his subscription will be entitled to join the corresponding *section* of the Royal Society of Medicine without further payment." Presuming that the Medical Society of London were willing to join the scheme under this arrangement, of what *section* would its Fellows be members? The Medical Society of London deals with all branches of medical science and consequently its Fellows being made members of one or more sections would not give them their present advantages.

In paragraph numbered 2 of the proposed scheme it says that "all monies, books, premises, and other properties belonging to any of the societies which join the proposed union shall become the property of the new society," and the Royal Medical and Chirurgical Society proposes that the following words should be added "and shall be vested in *the Fellows*." The result of this arrangement would be that the real and personal property of the present Medical Society of London would be transferred absolutely to those Fellows of the Royal Medical and Chirurgical Society who had compounded for their subscriptions; and the Fellows of the Medical Society, as they would only become members of a section of the Royal Society of Medicine, would lose all interest in, and control over, their present property. The Royal Medical and Chirurgical Society proposes for paragraph numbered 4 that "*the Fellows* of the society shall meet annually for the election of officers and other business, &c., &c." Paragraph numbered 7 states that "the Fellowship of the society shall be restricted to men who are registered medical practitioners of the British empire and to men whose scientific attainments *are satisfactory to the general council*." Paragraph numbered 9 says that "each section shall have the power to elect as members of the society such persons as the council of the section may think fit, provided that the names of the candidates proposed for election be previously submitted," and the Royal Medical and Chirurgical Society proposes the addition of the words "to the *council of the society* and approved by them." Paragraph numbered 11 says that "the general management of the society shall be under the control of a *general council*, consisting of the president, the presidents of the various sections, two treasurers, two librarians, two secretaries, *and eight other Fellows*." The Royal Medical and Chirurgical Society proposes adding to this, "the members of council, with the exception of the presidents of the sections (who are to be *ex officio* members) shall be *elected by the Fellows*."

It will be seen from the above quotations that all power is to be placed in the hands of the Fellows of the new society. From the first paragraph quoted it will be seen that at the commencement of the new society the only *Fellows* will be those Fellows of the Royal Medical and Chirurgical Society who have compounded for their subscription and they will have absolute power over everything, as shown by the above quotations. Is it to be expected that other societies are going to entirely give up their rights in this way? Why should not the Fellows and members of other societies who have compounded for their subscription be entitled to join the Royal Society of Medicine *as Fellows* instead of as members of a section? Such a scheme as proposed seems to me doomed to failure, as disappointment and dissatisfaction would be sure to follow, with the result that other societies would be formed and consequently the Fellows and members of the Royal Society would dwindle in number until it would be unable to meet its financial liabilities.

I am, Sirs, yours faithfully,

Wimpole-street, W., Dec. 18th, 1905. GEO. STEELE-PERKINS.

PS.—The italics are mine.—G. S.-P.

THE PARLIAMENTARY REPRESENTATION OF THE UNIVERSITIES OF EDINBURGH AND ST. ANDREWS.

To the Editors of THE LANCET.

SIRS,—I am credibly informed that certain canvassers who are endeavouring to gain support for my opponent, Mr. St. Loe Strachey, are making statements regarding my action in the General Medical Council which are the reverse of accurate. Generally, it has been stated that I either absent myself from the Council when penal cases are under consideration or do not vote, especially that I left the Council-room when the Rusholme case was being deliberated on during the late session. As to the general statement, I may say that I have sat for 18 years as member of the Council and that I have never been absent a single day during 35 sessions and that I have taken part in every penal case, except, perhaps, on one or two occasions when I was obliged to be in the House of Commons. As to the particular statement, I plead that when the Rusholme case was before the Council I and Mr. Jackson obtained leave from the President to be absent for an hour and a half in order to attend a deputation consisting of members of the British Medical Association and other societies at the Local Government Board Office and that I introduced the members of the deputation to Mr. Gerald Balfour. The object of the interview was to promote the interests of medical men working under the Local Government Board. These statements will, I am sure, be endorsed by every member of the Council. As the deliberations on penal cases take place *in camerâ*, the misleading statement must have arisen from some vague and unsubstantial rumour.

I am, Sirs, yours faithfully,

JOHN BATTY TUKE.

Charlotte-square, Edinburgh, Dec. 18th, 1905.

THE FREEZING POINT OF THE BLOOD.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Dec. 16th, p. 1772, there is a report of a discussion at the Medical Society of London on Modern Methods of Diagnosis in Kidney Disease, in which Mr. E. Hurry Fenwick is represented as saying: "The normal freezing point of the blood was $-0\cdot60°$ C. and this was lowered in pathological conditions to $-0\cdot59°$ or $-0\cdot57°$." This is about the most novel form of lowering I have come across for some time, and if such a palpable error had come from the Sister Isle it would probably have been described as an Irishman's rise. As a matter of fact, the normal freezing point of the blood ranges from $-0\cdot55°$ to $-0\cdot57°$ C., and in some pathological conditions it may fall even below $-0\cdot60°$ C. I am, Sirs, yours faithfully,

Liverpool, Dec. 20th, 1905. JAMES BARR.

*** We regret that the slip should have been overlooked in the proof.—ED. L.

DEATH OF A DIVER FROM AIR EMBOLISM.

To the Editors of THE LANCET.

SIRS,—The diver in question[1] died because his body fluids had dissolved air at the pressure at which he worked. This air effervesced off in his blood-vessels owing to his rapidly returning to normal atmospheric pressure. The air bubbles embolised his lungs. It is wrong to talk of "strain on elasticity of lungs" and of "ribs bearing the bulk" of the pressure, because the air pressure is equally distributed throughout the body.—I am, Sirs, yours faithfully,

LEONARD E. HILL, M.B. Lond., F.R.S.

Loughton, Dec. 14th, 1905.

[1] THE LANCET, Dec. 9th, 1905, p. 1738.

MODERN MEDICAL EDUCATION.

To the Editors of THE LANCET.

SIRS,—May I call attention to a very serious blot on our present system of medical education? For the last nine years I have spent a large part of my professional income in educating my son for our profession: first for five years at a university, then for two and a half years at one of our largest London medical schools, and then for a year (without salary) on the junior staff of his hospital. At the end of it all I find that he is totally unfit for the daily routine work of private practice.

After 30 years' experience of such work myself, I see that my patients take but little interest in bacteriology and blood counts, but they cling with perverse superstition to the old-fashioned desire to have some medicine to make them better. They want a cough mixture, or a tonic, or a gargle, or an aperient, and so forth. This is precisely what the new "physician and surgeon" is unable to give them, owing to his profound ignorance and contempt for materia medica and therapeutics. In my son's case the comparative ease and credit with which he passed all his 10 or 12 examinations forbid me to attribute this want of knowledge to stupidity or indolence on his part; it is simply due to lack of teaching.

I am aware that at all our medical schools a course of lectures is given on materia medica, but as no practical knowledge of pharmacy is demanded either by the colleges or the universities, it is, of course, not acquired by the student. A distinguished F.R.C.S. once told me that the Society of Apothecaries had done more for medical education than either of the colleges; and I quite agree with him. I only wish that the foolishly and snobbishly despised L.S.A. was compulsory instead of optional. An old-fashioned Hall question, such as "Mention six of the official preparations of opium, stating the quantity of opium in each, and give their therapeutics and doses," would make our young "physicians and surgeons," break out in a cold perspiration of horror and amazement. Verily, "*Cucullus non facit monachum*," and M.A., B.M., B.Ch., L.R.C.P., M.R.C.S. do not spell "general practitioner."

I recall with complacency and satisfaction the two whole summer sessions I spent in the early "seventies" in grinding up my "Garrod," until I knew that most excellent book well-nigh by heart. I believe that the apothecaries of the seventeenth and eighteenth centuries, with their "herbs and simples," and even the Egyptian physicians of 5000 years ago, had more practical knowledge of pharmacy than our young graduates and conjoint men have at the present day. Who is to treat the common "ills which flesh is heir to" when the therapeutical old fogies like myself have passed away? Will not this practice of necessity pass more and more into the hands of chemists who alone will have the knowledge required by the public for giving them something to make them better, which after all, they not unreasonably prefer to a mere scientific diagnosis of their complaints? I rejoice, Sirs, that I can subscribe myself not only a mere M.R.C.S., but also, Sirs, Your obedient servant,

Dec. 18th, 1905. L.S.A.

THE LEPERS OF POONA.—The Mission to Lepers has secured in gifts and promises £825 towards the £1000 required for its new asylum for the lepers of Poona (Bombay Presidency). A further sum of £175 would enable it to claim the grant promised by the authorities and to make proper provision for the many homeless outcasts of the district. It is specially desirable that this sum should be raised by the end of the year. Contributions should be sent to Mr. John Jackson, F.R.G.S., the Mission to Lepers, Exeter Hall, London, W.C.

DEATH OF A CENTENARIAN.—The *Times* of Dec. 11th states that Mrs. Annie Vickers of Waddington, Lincolnshire, has just died at the age of 101 years. She was born at Bardney and at the age of 16 years married Mr. William Vickers of Sudbrooke, who died in 1887. Mrs. Vickers was very active and enjoyed good sight up to 1903 when she was seized with paralysis and was deprived of speech. Four of her 17 children are living and there are also 41 grandchildren, 85 great-grandchildren, and two great-great-grandchildren.

THE CHICAGO STOCKYARDS.

ENERGETIC ACTION OF THE LOCAL AUTHORITIES.—GREAT SEIZURES OF DISEASED MEAT.

(FROM OUR SPECIAL SANITARY COMMISSIONER.)

THERE has been a great awakening at Chicago in regard to the abominations perpetrated at the notorious union stockyards. In these columns energetic protests have been made against the fact that the United States meat inspectors have to examine for trichinæ all the hogs' flesh that is exported from Chicago to Austria, Germany, Denmark, and France, but that the hogs' flesh exported to Great Britain or consumed in the United States is not so examined and guaranteed. As it is found among the hogs examined that, on an average, 1¼ per cent. are infected with trichinæ the question naturally arose why the Americans and the British consent to consume this dangerous parasite. It would appear that now, however, the inhabitants of the city of Chicago have awakened to some sense of the risks and dangers created by the staple industry established in their midst. Of course, each city has the right to take what measures it deems necessary to inspect and to control its own food-supply. At the stockyards there always have been some meat inspectors appointed by the city of Chicago but little was heard of them. They were obviously utterly unable to cope with the task before them and when it is impossible to do a thing properly there is a strong temptation to leave it alone altogether. In any case, the sanitary services of the city of Chicago have always been starved. The following few figures eloquently set forth this fact. Thus the city of New York paid its municipal employés salaries amounting in 1903 to $52,364,272, and of this sum $751,533 went to the health department. During the same year the municipal salaries at Philadelphia amounted to $10,793,710 and at Boston to $10,095,639. The amounts that in each city went to the health departments were $154,306 and $101,352 respectively. But at Chicago, while $14,791,002 were paid in salaries, only $46,901 were paid to the health department. As the commissioner of health of Chicago points out, upwards of 14 per cent. of the total salaries are appropriated for the health department of New York and Philadelphia and more than 9 per cent. at Boston. But at Chicago the expenditure devoted to this all important and life-saving service only amounts to 3·1 per cent. of the whole. Though with this small sum very excellent work has been done, it is not surprising that many important matters have been neglected. Why the stockyards should have been numbered among the latter must be left for local economists and politicians to explain.

For the moment it must suffice to congratulate the city sanitary authorities on the recent appointment of six new meat inspectors and the far more energetic measures that are now enforced. Also, there has been issued an official statement as to the health of the inhabitants of Packing Town, as the stockyards district is called. Of course, this should be exceptionally good. Here dwell the workers who have the good fortune to be employed in the staple, the ever-increasing, and most prosperous industry of the country. They do not live in an old town with narrow streets, antique houses, reeking with filth and standing on soil infected with foulness accumulated during centuries. Yet this description would apply very well to the slaughterers employed at, for instance, the Villette abattoir at Paris. A century ago Chicago did not exist. The stockyard workers are living on virgin soil that has never been inhabited before they came. They have cottages surrounded by large gardens and open spaces. Practically they are living in the country and it is claimed that they earn ample wages. Consequently, and if the work they do in the stockyards is performed under wholesome sanitary conditions, the sick- and death-rate among them should be exceptionally and extraordinarily low. Nevertheless, the bulletin of the Chicago health department issued on Sept. 16th authoritatively states that the death-rate of the stockyards district of Chicago averages about 6·4 per cent. higher than the general death rate of the whole city. Of course, in the poverty and slum quarters of the city a much worse state of affairs is found. Thus the death-rate of the stockyards district averages between 12 and 13 per cent. lower than the average

of ten other districts or wards where there are no stockyards. In 1900, the last year of the old ward boundaries, the death-rate for the entire city of Chicago was 14·68 per 1000. That of the twenty-ninth ward—the stockyards district—was 15·62 per 1000, or 6·4 per cent. higher. But the death-rate in the twenty-first ward was 15·95; in the sixth, it was 16·50; in the fifth, 16·71; in the first, 16·80; in the second, 17·05; in the nineteenth, 17·40; in the sixteenth, 18·21; in the seventeenth, 18·63; in the twenty-third, 18·69; and in the eighteenth, 23·06. The average death-rate of these ten wards was 17·90 per 1000, or 12·7 per cent. higher than the stockyards ward. Perhaps it is because this comparison was interpreted as being favourable to the stockyards district that the necessity for action was not so keenly felt. Nevertheless, it is obvious that the statistics are not to be judged only on their numerical appearance. It is necessary to consider not merely what the mortality of the stockyards district is but what it ought to be. It is obvious that living right away from the centre of the city and in what is practically a country district, with ample air space, regular employment, and with what the master packers, in any case, maintain is a very high rate of wages, the 50,000 to 60,000 employed in the stockyards should have a death-rate not merely below that of the bad, slum, and poverty stricken parts of the city, but the death-rate of so favoured a district and population should fall below that of the city as a whole. If the Beef Trust is the beneficent institution that it represents itself to be, then its employés should constitute the most fortunate, the most healthy, section of the population of Chicago, whereas they have a death-rate 6·4 per cent. higher than that of the average of the entire city. But the conditions under which they work and which have been so fully described explain this disparity.[1]

At the end of June last Dr. Arthur R. Reynolds, who was first appointed as commissioner of health of the city of Chicago in 1893, retired from office. On more than one occasion Dr. Reynolds has been congratulated for the remarkable reduction of the death-rate of the city during his tenure of office. It was 21·6 per 1000 in 1893 and by 1900 it had fallen 25 per cent., being 16·2 per 1000, while last year it was only 13·62 per 1000. Dr. Charles J. Whalen is the present medical officer of health, as the post would be defined in England, and it is under his guidance that the new measures against the stockyards have been taken. At the stockyards, where more than 15,000,000 animals of different sorts, from poultry to bulls, are killed during the course of the year, the interests of the meat consumers of Chicago were only represented by two inspectors. These two individuals were supposed to look after such portion of the meat prepared at the stockyards as was intended for consumption within the boundaries of the city of Chicago. Evidently, as mentioned above, this duty has been grossly neglected. Whether it be that the Government of the United States, having commenced a series of actions against the Beef Trust, has caused the local authority of Chicago to pluck up its courage, in any case, and apparently for the first time, the two city meat inspectors have been unmuzzled and let loose into the stockyards. As a result the following naïve admission appears in the health department's bulletin of Sept. 23rd last. "More recently the union stockyards and neighbouring slaughter- and packing-houses have received attention." The "more recently" is a beautifully guileless expression to use in the face of the bitter and fierce struggles that have taken place in regard to these stockyards. In view of their dramatic history the following continuation of the report will be read with the deepest interest and amazement: "During the last two weeks the two inspectors at the stockyards—the entire available force for this work—have condemned and destroyed 242 cattle, 503 hogs, 31 sheep, and nine calves, being a total of 202,901 pounds of meat unfit for human food, but ready to be offered for sale to the citizens of Chicago." Here it must be noted that but for this newly found energy on the part of only two inspectors, the inhabitants of Chicago would undoubtedly have eaten in the course of a fortnight some 200,000 pounds of diseased meat. It seems that when I ventured to denounce the condition of the stockyards and the industry there carried on as a public danger and a disgrace to civilisation I did not exceed the limits of legitimate criticism. The meat was condemned because the animals were suffering from tuberculosis, pneumonia, "lumpy jaw," Texas fever, jaundice, necrosis, cholera, pleurisy, uræmia and anæmia, emaciation, asphyxiation, bruises, killed by trampling, &c. It would seem as if the two city meat inspectors, in their newly awakened zeal, had shown more perspicacity than the Government inspectors who are appointed by the central authorities at Washington and whose special mission it is to protect those foreign and European Governments which have legislated against the importation of trichinæ from Chicago. In any case, the report says, speaking of the condemned meat:—

> Among these animals were six cattle that had been passed by the Government inspectors. Two cattle were found last week by the Department inspectors that had been passed by the Government inspectors after the evidences of tuberculosis had been trimmed out. The city inspectors destroyed these cattle. The Government inspectors refused to allow the city meat inspectors to remove glands and other organs suspected of being diseased, for the purpose of microscopic examination by the laboratory bacteriologists.

Then comes this startling statement that, while during the week ending Sept. 23rd, 1905, the city inspectors condemned at the Chicago stockyards no less than 173,769 pounds of meat, they had condemned during the corresponding week of the previous year only 2002 pounds. This indicates in what a perfunctory manner the work of inspection was done but a short time ago. Dr. Whalen, alluding to these statistics, says: "The above figures show the quality of the food supplies generally to be not only discreditable but positively dangerous."

By Oct. 14th we hear of four meat inspectors being at work and in one week they condemned 131,954 pounds of meat, including 115 cattle and 428 hogs, together with 5576 pounds of dressed meats, sour hams, bacon, &c. This was 53 per cent. more than three inspectors had been able to discover and condemn the week previously. Seven diseased carcasses of tuberculous cattle were discovered, with evidences of the disease cut away, in the "coolers" after having been passed by Government inspectors. By Oct. 28th six new meat inspectors had been appointed by the city authorities and they destroyed in the one week 496 animals weighing 145,343 pounds. Again five cattle were found in the "coolers" with the evidences of tuberculosis cut away from them. By the month of November it was found that since August 7th, when the present service had been established, the average weekly condemnation of meat as unfit for food was equal to 137,300 pounds. If this average is maintained it will make an aggregate of 7,141,316 pounds in a year. As a result circulars have now been sent out calling upon farmers and cattle-breeders to be more careful as to the conditions of the animals which they send and hopes are entertained that "Chicago has ceased to be a dumping ground for unfit food." By Dec. 1st it had been estimated that since August 7th the Chicago city inspectors had seized and destroyed 2,391,719 pounds of meat and fish and 389,478 pounds of fruits and vegetables. The authorities conclude that this means that the housewives of Chicago have been prevented from spending £47,722 in the purchase of food "the consumption of which would have injured health and spread tuberculosis, trichiniasis, and other diseases." On Nov. 4th a report states that the principal causes of the condemnation of meat was in 85 per cent. for tuberculosis, in 12 per cent. for actinomycosis or "lumpy jaw," and in 4 per cent. for hog cholera. The report adds: "Many nuisances which, owing to the inadequate force, could not heretofore be abated, will now receive prompt attention." This, so far as it goes, is highly satisfactory and it is something to know that a check has been exercised over the reckless proceeding that prevailed in the stockyards. Nevertheless, there remains the fundamental fact that the entire system of slaughtering is defective from beginning to end. It is grossly inhuman, because no effort is made to mitigate the apprehension and torture of the animals. It is absolutely insanitary and dangerous, because there are no slaughter-houses or abattoirs in the technical sense of the term and therefore the wholesome meats are exposed to the risk of contamination throughout the whole process of their preparation. This risk will be somewhat reduced by the fact that that portion of the meat which though diseased is intended to be sold to the inhabitants of Chicago is now more likely to be seized and destroyed. But what about the rest? There is but one remedy that will be really effective throughout—the building of a public abattoir and the compulsory closure of all private slaughter-houses.

[1] THE LANCET, Jan. 7th (p. 49), 14th (p. 120), 21st (p. 183), 28th (p. 258) and July 15th (p. 186), 1905.

WALES AND WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENTS.)

The University of Wales.

THE supplementary Charter which is sought to be obtained by the University of Wales will enable any public educational institution in Wales which is duly equipped for research, study, and instruction in the several branches of technical or applied science to be affiliated to the University. The Charter also provides for the establishment of a faculty or faculties of medicine and surgery and for the admission of members of the University Guild of Graduates to degrees in recognition of original research carried out by them.

Cardiff Infirmary.

A committee of the board of management of the Cardiff Infirmary has been considering the desirability of appointing a special officer to inquire into the circumstances of some of the patients who attend the out-patient department. It has been stated that some persons go to Cardiff by train, and though willing to pay railway fares are unwilling to pay fees to a local medical man.[1] The chairman of the board, with two other members, has spent three days among the out-patients and is now of opinion that there is not very much abuse of the department. It has therefore been decided not to make any alteration in the existing system.

A Public Analyst for Bristol.

The Bristol corporation has decided to appoint a public analyst who shall give his whole time to the duties at a salary of £450 per annum with annual increases of £25 until £600 are reached. The gentleman appointed will have two assistants who will be paid 35*s.* weekly. The new officer will in the first instance carry out all the analyses required in the administration of the Sale of Food and Drugs Acts and he will eventually take over the bacteriological examinations which during the past two years have been performed for the public health department of the corporation by Professor A. F. Stanley Kent at the Bristol University College laboratories.

Poor-law Relief in Bristol.

Owing to the constant increase which is taking place in the number of outdoor paupers in Bristol a committee of the board of guardians has recently been making inquiries as to the extent of pauperism in other large towns. From the report of this committee, which has just been published, it appears that in a given period the proportion of poor relieved in the whole of England and Wales was equal to 27·6 per 1000 of the population, and that the corresponding proportion in several large towns was as follows: in Bristol, 30·4 per 1000; in Manchester and Liverpool, 29; in Leeds, 27; in Portsmouth, 25; in Newcastle-upon-Tyne, 22·5; in Birmingham, 20; and in Bradford 14·5. The committee recommends the appointment of a superintendent relieving officer and a more stringent inquiry into the circumstances of applicants for relief, urging that beyond the mere question of the present undue cost to the city there lies the more important question of the effect which the giving of relief without careful restrictions may have on future applicants. It is of interest in this connexion to quote from the last report of Mr. E. B. Wethered, Local Government Board inspector. There is, he says, a growing tendency to increase out-relief on the ground of mistaken notions of economy. Too often it happens that relieving officers have more cases to attend to than they can properly examine and it is difficult to persuade some guardians that an extra officer may mean economy owing to the more careful investigation brought to bear. He then states that in Bristol a temporary reduction in the number of relieving officers resulted in one half-year in an increase of £218 being paid as out-relief in one of the districts concerned.

School Children in Rural Districts.

A reduction in the age for compulsory school attendance from 14 years to 12 years is being advocated in many rural districts and has received the qualified approval of Sir William Anson. There are probably two principal reasons for desiring to curtail the school life of country children—namely, a desire to obtain cheap labour and at the same time to lessen the cost of national education which now falls directly upon the local ratepayers. At the last meeting of the Somerset education committee a motion was proposed expressing the opinion that on the application of the parents exemption ought to be granted to children attending rural schools on their attaining the age of 12 years provided that these children had previously made regular attendance at such schools and that the school attendance committee was satisfied that the children would be profitably employed. The motion was defeated by 12 votes to 4, one member of the committee pointing out that very few children reached the exemption standard at the age of 12 years, while many dull children when they reached 12 years found their intellects gradually opening and the next year or two was the most profitable time of their school life.

Medical Officers of Hospitals as Witnesses at Inquests.

The payment of fees to medical officers of cottage hospitals and similar institutions has recently engaged the attention of the Devon county council and at the meeting held on Dec. 14th the finance committee, in presenting the report of the auditor for the year ended March 31st last, stated that the payment of fees to medical officers of cottage hospitals as witnesses at inquests was to all appearance contrary to the provision of Section 22 of the Coroners Act, 1887. The Admiralty had also informed the committee that in its opinion the giving of evidence at inquests and the making of post-mortem examinations upon bodies of men in the naval service formed part of the duties of a naval medical officer, and the Admiralty desired that in future no such fees should be paid. In conclusion, the finance committee recommended that the coroners should be requested to abstain from paying fees to these classes of medical witnesses. The report was adopted, many members thinking it hard on the medical men, and the chairman remarked that it was a question which might usefully engage the attention of Parliament.

Dec. 19th.

[1] THE LANCET, July 29th, 1905, p. 319.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal Medical Society, Edinburgh.

A MEETING of this society was held on Dec. 8th. Dr. J. D. Wells delivered his presidential address on Psychotherapy. He dwelt at some length on the influence of the conscious over the subconscious mind and showed how the medical man, to be successful, must be in absolute sympathy with his patient. He touched on hypnotism in relation to medicine and on the treatment of hysteria, and suggested that there should be chairs of psycho-therapy in the various universities. Mr. Turnbull moved, and Mr. Greenfield seconded, a hearty vote of thanks to Dr. Wells for his interesting address. Dr. L. S. Milne read a dissertation on the Treatment of Bright's Disease. He dealt with his subject most thoroughly and with much detail. A vote of thanks was accorded to him on the motion of Dr Graham, seconded by Mr. Nelson. Dr. Wilkie presented a surgical case of Tetanus Poisoning which had been successfully treated.

A Historical View of Asylum Construction and Planning.

An interesting paper on this subject was recently read before the Glasgow Royal Philosophical Society by Mr. R. D. Sandilands, architect. At the outset he described the treatment accorded to, and the accommodation provided for, the insane previously to 1815. At that time philanthropists awoke to the necessity of making better and more healthy provision for that class of people. They were led in this movement by the Society of Friends in York who built a small home which they called "The Retreat." The kind and firm treatment adopted with more freedom had a curative influence on the patients and soon led to a similar method being adopted all over the country. The passing of the Lunacy Act in 1845 for England and in 1857 for Scotland had a very beneficial influence on the treatment of the insane and asylum construction rapidly improved. The Derby Asylum was amongst the first of what might be called the modern period, when severe restraint was abolished. From that period onwards the progress was all towards greater liberty and kinder treatment of the patients. The lecturer referred to some of the more modern asylums such as Woodilee and Gartloch, which he described in detail and showed plans illustrating

the mode of construction. These asylums, he said, were erected on the pavilion system where the obnoxious key was abolished and the open-door treatment was adopted. This, again, was followed about eight years ago by the village system which was strongly advocated by the late Sir John Sibbald. As a type of this he described the asylum at Alt-Scherbitz in Prussia. It is interesting to note that the Edinburgh parish council is at present building an asylum on the principle of the one in Alt-Scherbitz.

Royal Army Medical Corps (Volunteers).

Lieutenant-Colonel G. T. Beatson, C.B., presided last week over the annual gathering of the Glasgow companies of the Royal Army Medical Corps (Volunteers). The prizes won during the season were presented by Surgeon-General Alfred H. Keogh, Director-General of the Army Medical Service, who, in the course of a short speech, briefly dealt with military sanitation and the new scheme for the formation of a volunteer reserve for regular medical service in the army, which, he said, was likely to prove successful. In connexion with sanitation he considered that the allowance of 10 per cent. sick in an army in the field was a disgraceful state of affairs.

Diphtheria carried by Cats.

The bacteriologist for the burgh of Govan has issued an interesting report on the result of his investigations into the possibility of the infection of diphtheria being carried by the lower animals, especially cats. Two cats were taken to the laboratory where their throats were examined. Micro-organisms from the throat were cultivated on artificial media outside of the body and were found to correspond in every respect to those of the human subject. In one case the animal had been in the habit of sleeping in the same bed as the patient; in the other the child had been carrying it in her arms and kissing it, as children frequently do with domestic pets. As both cats had been ailing previously to the children becoming affected, infection is quite likely to have been carried in this way, and it is perfectly reasonable to suppose that similar instances of undetected or unrecognised attacks of disease among the lower animals have materially contributed to the prevalence of diphtheria. Of five cases of diphtheria recently reported in Govan three patients came from two families living in adjoining properties and two from a house in a tenement directly opposite. In the circumscribed area inclosing the back courts of these buildings there had been a stray cat which had eventually obtained a home in one of the families affected. The animal, when examined, was found to be suffering from post-diphtheritic paralysis of the legs.

Heavy Death-rate in Greenock.

The health department of the Greenock corporation has appointed a special committee to be known as the "consumption committee." It is understood that half of the total deaths in Greenock are caused by consumption and infantile diseases, and to counteract these if possible the new committee will deal seriously with their prevention and treatment. The first step which the committee has taken is a wise one and quite practicable in a comparatively small town like Greenock. It is arranging a conference of all the medical men in Greenock to get a free expression of opinion as to the methods to be employed in battling with consumption and infantile mortality and also to enlist their support in connexion with any scheme which may be adopted by the corporation.

Damages against a Dentist.

In the Glasgow sheriff's court this week, an action was brought by an apprentice engineer against a firm of Glasgow dentists. It seems that on the forenoon of July 11th, 1905, an assistant of the defender extracted a tooth on the left side of the pursuer's upper jaw. The assistant did not examine the gum after extraction and it continued to bleed until about 10 P.M. of the same day, when a medical man was summoned who tried to stop the bleeding but failed and advised the pursuer to go to the Royal Infirmary where the bleeding was stopped by a surgeon. His lordship decided that the bleeding arose in consequence of a careless operation by the defender's assistant who caused unnecessary laceration of the gum and failed to examine the wound after extraction. As the pursuer was affected in health by the injury he awarded him £15 in name of damages with expenses.

Dispensary for Consumptives in Glasgow.

Under the auspices of the Association for the Prevention of Consumption a dispensary for the examination and treatment of consumptives has been established in the city. Through the kindness of the corporation suitable accommodation has been provided in the City Sanitary Chambers where a qualified physician will be in attendance twice a week to examine and to give advice to patients. One advantage of this institution is that it will act as a feeder for the Bellefield Sanatorium; another advantage is that, carried on as it is in the premises of the health committee, it will render it easier for the sanitary officials to follow up the disease to the homes of the people and it may be found to be a more efficient weapon for combating the disease than voluntary notification has been.

Extension of the University of Aberdeen.

The finial of the south turret over the entrance archway to Marischal College was placed in position on Dec. 7th. The twin towers at the sides of the entrance are each 108 feet in height. The three-point archway, which forms the main entrance, provides an ample carriage way 21 feet wide, with two side openings, also arched, each five feet wide, for foot passengers. The beautiful gable, in which the archway is built, constitutes one of the features in the front elevation of what is admitted to be perhaps the finest pile of granite buildings in the world. Immediately over the archway is a broad band containing a series of coats-of-arms, cut in Kemnay granite, this being the material in which the great extension has been carried out. In the centre of the band are the arms of the University of Aberdeen and these are flanked by the armorial bearings of the Earl Marischal and Bishop Elphinstone, the founders of Marischal College and King's College respectively. The arms contained in the other panels are those of Lord Strathcona and Mount Royal and the late Dr. Charles Mitchell—two munificent benefactors of the University—and the arms of the city of Aberdeen and Old Aberdeen. The fact that the mason work of this gable is panelled instead of being plain greatly enhances the effect produced. Above the coats-of-arms is an ornamental cornice, while the mouldings and decorative rosettes, all cut in granite, constitute a piece of the most beautiful ornamentation ever executed in a granite building. The first floor windows are decorated with cusp transom and lintels and this style of ornamentation is continued to the line of the top floor windows, where there is a main course with curiously worked gargoyles. As indicated, the mason work of the front elevation—the last part of the extension to be undertaken—is now completed, apart from the fact that a few granite crockets have yet to be put in position as the scaffolding is removed.

Aberdeen Medico-Chirurgical Society.

On Dec. 15th the members of the above society held their annual dinner in their chambers, King-street, Professor Alexander Ogston, the President, being in the chair and Dr. A. Rudolf Galloway acting as croupier.

Dec. 19th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Housing of the Working Classes in Dublin.

A MEETING of the committee of the whole house of the Dublin corporation was held on Dec. 13th in the council chamber of the city hall to consider the report of the conference between the Parliamentary representatives of the city and county of Dublin and the trades council on the subject of the housing of the working classes. The Lord Mayor presided and the report, among other things, recommended the building on the outskirts of the city of cottages and the procuring of cheap means of transit for workers, which the committee believed would not be difficult to arrange with the tramways company and the railways. The provision of these semi-rural dwellings would, the report stated, lessen the congestion in the older parts of the city and when the pressure on the tenement houses had been relieved the law could be more strictly enforced for the demolition of houses unfit for human habitation. The committee instructed the town clerk, the law agent, and Sir Charles Cameron to prepare a scheme embodying the recommendations in the report so that Parliamentary powers might be sought in the matter.

Disorder in the Royal University.

A special meeting of the Senate of the Royal University

of Ireland was held on Dec. 15th. There was a large attendance and the following motions were carried :—

That we, the Senate of the Royal University of Ireland, whilst believing that the disorderly conduct of some of the graduates and undergraduates at the conferring of degrees on the 27th of October was most reprehensible and deserving of punishment, feel that, in view of the legal opinions we have received as to our powers, it would not be advisable for us to take any action with regard to that past conduct.

The Senate feel, nevertheless, the urgent necessity of obtaining powers to deal with all matters connected with the honour and discipline of the University and therefore request the Chancellor to approach His Majesty's Government and ask them to take such steps as may be found necessary to obtain for the University the needful powers.

The Ulster Medical Society.

At the second meeting of the session, 1905–06, Dr. W. Calwell, the President, being in the chair, Dr. John McCaw read notes of a case of Anæmia in a child and gave details of a severe case of Chorea successfully treated with large doses of salicylate of sodium. He also showed a typical case of Pseudo-hypertrophic Paralysis. Mr. Andrew Fullerton showed a case of Congenital Dislocation of the Hip one and a half years after treatment by Lorenz's bloodless method, and also an untreated case. He read notes of several cases illustrating the use of the urine segregators of Luys and Harris and he also showed photographs of a case of Deformity of the Nose treated by the Injection of Paraffin. Mr. W. McHarry showed an ingenious form of Truss and also a Gynæcological Crotch which could be applied to any couch. Dr. P. T. Crymble showed a case of Locomotor Ataxia and demonstrated Fraenkel's method of treatment. Dr. J. C. Rankin showed three cases of Lupus of the Nose treated by the Finsen Light. Dr. Thomas Houston explained a recent method, suggested by Wright, to take the place of cryoscopy for testing the efficiency of the kidney.

Deaths of Medical Men.

Extreme regret is felt in the north of Ireland at the deaths of two promising young medical men, both old Belfast students, Captain James Waddell, R.A.M.C., and Dr. J. F. Stewart. The former, a son of a Presbyterian missionary to Japan, was educated under the care of Dr. R. J. Bryce (uncle of the Right Hon. J. Bryce, M.P., Chief Secretary for Ireland) and at Queen's College, Belfast. In 1900 he obtained the M.B. of the Royal University and for a time was surgeon to the Banbridge infirmary. Later he went as civil surgeon to the South African war and after two years' distinguished service accepted a commission in the Royal Army Medical Corps. He was invalided for a couple of years but recovering in July last he returned to South Africa, where he died recently at Middleburg. He was an excellent student and a most capable medical officer of the Royal Army Medical Corps. Dr. J. F. Stewart, son of Mr. John Stewart, medical officer to the Belfast Prison, after studying in Belfast and Edinburgh, where in 1898 he graduated M.B., volunteered for service in South Africa at the time of the war, and afterwards was appointed colonial surgeon in West Africa. He was granted the certificate of tropical medicine in 1903 and obtained the diploma in public health of the Royal College of Physicians of Ireland and became a Fellow in 1904 of the Royal Geographical Society. As was recorded in THE LANCET of Dec. 9th, p. 1720, his death took place in very sad circumstances, for he was killed by hostile natives in Southern Nigeria, his father receiving intimation on Nov. 29th from the Colonial Office, while his last communication was written on Nov. 4th, when he was in the best of health. Great sympathy is felt for Mr. John Stewart in the loss he has sustained by the death of his son, who gave every indication of having before him a distinguished career.

Dec. 19th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Ocular Disturbance following a Fall on the Head treated by Lumbar Puncture.

AT the meeting of the Ophthalmological Society held on Dec. 5th M. Chaillou showed a patient who, after having fallen on his head, remained comatose for nine days. On recovering consciousness he suffered from violent headache and visual troubles. 15 days later the headache and the visual troubles still persisted, so he applied at the Laribolsière Hospital for treatment. Double optic neuritis and a retinal hæmorrhage in the left eye were found. Lumbar puncture was performed and 15 cubic centimetres of cerebro-spinal fluid were drawn off which, however, contained no formed elements. Some days later the headache had disappeared and ophthalmoscopic examination revealed the fact that the optic neuritis and the retinal hæmorrhage had cleared up. Ophthalmoscopy should therefore apparently be practised after any injury accompanied by signs of intracranial compression. The presence of optic neuritis is an indication for carrying out lumbar puncture, which is a method useful for diminishing intracranial pressure and also for obviating the persistence of visual trouble.

Two New Acts.

Two interesting decrees of Parliament have recently been put forth. By the first young persons under the age of 18 years are, on account of the risk of contracting infectious diseases, prohibited from working in workshops where dirty linen which has not been disinfected—or at least soaked in soap suds—is handled. By the second the Academy of Sciences is authorised to accept under the stated conditions the legacy left by M. Irenée Longchampt, which consists of a sum of 4000 francs annual income which is to be devoted to an annual prize to be given to the author of the best treatise upon the maladies of man, the lower animals, or plants, regarded from the special point of view of the introduction of excess of mineral matters as a cause of such disease.

Washing out the Stomach after Laparotomy.

After the reading of a paper on this subject by M. Reynier at the meeting of the Society of Surgery held on Dec. 6th M. Tuffier, M. Hartmann, and M. Terrier spoke in succession as to the advantages of this treatment in patients who suffer from vomiting after laparotomy. M. Reynier, in his reply, summed up the physiological reasons for the benefits derived from this method of treatment. Finally, he said that if the method was not invariably beneficial it at least never did any harm.

Gastric Ulcer and the Bismuth "Dressing."

On Dec. 2nd M. Leven and M. Barret communicated a paper on this subject to the Society of Biology. They said that both radioscopy and experiments upon dogs had shown them that the classical treatment of gastric ulcer by means of a subnitrate of bismuth dressing was not justified. The whole of the mucous membrane is not even lightly covered with the salt. The bismuth heaps itself up at the lowest point of the gastric cavity. Even if by chance the exact seat of the ulcer has been diagnosed and the bismuth has been applied directly to it the constant contractions of the stomach, which are easily visible by radioscopy, very soon remove the bismuth from the ulcer. Large doses of bismuth should therefore be given up and small ones only be employed, for they have the same beneficial influence on the pain as have large doses.

The International Congress of the Hygiene of Food.

The International Congress organised by the Scientific Society of the Hygiene of Food and of the Food-supply of Man will be held in Paris from Feb. 26th to March 3rd, 1906. The congress will comprise 15 sections, divided into two main divisions—viz., scientific research and social application. The following are the details of the sections. 1. Biological physics. 2. Physiology and biological chemistry. 3. Food-supply and diet scales. 4. Analytical chemistry, adulteration, and legislation. 5. Statistics, delivery of food-stuffs (*approvisionnement*). 6. Hygiene as applied to the technology of the storage and carriage of food-stuffs. 7. Cheap food-supplies and restaurants for adults. 8. Cheap food-supplies for the nourishment of infants. 9. Cooperative stores and commercial competition. 10. Cheap food-supplies in commercial establishments. 11. The hygiene of the food supplied in workshops. 12. Hygiene of the food-supply in families. 13. The social prophylaxis of alcoholism and of tuberculosis as spread by food. 14. Charities for the supply of food. 15. Information for a rational diet and for the hygiene of food-supply in schools.

The Bacteriology and Histology of a Case of Sleeping Sickness in a White Man.

M. Sicard, in collaboration with M. Houtier, has recently been able to study the bacteriology and histology of a fatal case of sleeping sickness in a white man. The patient had contracted the disease in the Gambia from contact with

infected negroes. Although the blood and the cerebro-spinal fluid were examined for trypanosomata many times during the three weeks before death, during which time the patient was under observation, none could be found. Intraperitoneal injection of the cerebro-spinal fluid into guinea-pigs produced no results, but subcutaneous injections of this fluid into monkeys brought about the specific infection and trypanosomata were found in great numbers in the blood of the monkeys. It therefore appears that direct examination of the suspected fluids may not be enough for diagnosis and control experiments should also be carried out. Histological examination of the brain and spinal cord of the patient showed intense inflammation of the arachnoid membrane and of the pia mater and this inflammation was evident to the naked eye. Microscopical examination showed marked leucocytosis of the pia mater. The small vessels were inflamed and the inflammation extended to the vascular sheaths. These results in the white man are in conformity with those already observed in the black races. M. Sicard communicated the results of his researches at a meeting of the Hospitals Medical Society held on Dec. 8th.

Secondary Suture of the Musculo-Spiral Nerve; Recovery of Function.

At the meeting of the Surgical Society held on Dec. 6th M. Chaput read an account of a case which had been under the care of M. Gervais de Rouville. The patient was a young woman, aged 20 years, who had her humerus trephined for osteomyelitis in February, 1904. After the operation she suffered from complete musculo-spiral paralysis. In March, 1904, she came under the care of M. de Rouville. He cut down on the nerve and found that its two ends were united by a band of fibrous tissue. The ends were refreshed and were united by a peri-neural suture. Sensation rapidly returned; power of movement reappeared at the end of four and a half months and was now quite perfect. M. Berger said that he had had under his care an officer who had sustained a comminuted fracture of the lower end of the humerus and in whom the musculo spiral nerve had been torn across. Some months later he came to M. Berger on account of musculo-spiral paralysis. M. Berger cut down on the nerve and found that the two ends were united by a fibrous band and were, moreover, caught in the callus. He freed them, refreshed them, and having elongated them united them by suture. One year later, however, the patient was no better. On the other hand, he had had a case under his care in which the ulnar nerve had been divided and in which, nine months after suture, complete functional recovery had occurred.

Dec. 19th.

*** Our Paris correspondent desires us to say that in his letter which appeared in THE LANCET of Nov. 25th there was an error in the paragraph concerning the injection of soluble mercury salts. The quantity of water necessary was given as "1 centigramme." It should have been *1 gramme*. —ED. L.

SWITZERLAND.

(FROM OUR OWN CORRESPONDENT.)

Formaldehyde in the Treatment of Infectious Disease.

Dr. Schwarzenbach of Tramelan has published at length in the *Correspondenzblatt für Schweizer Aerzte* his observations on the internal use of formaldehyde in infectious diseases due to the invasion of streptococci. Salicylates are prescribed in rheumatic affections with varied success; they seem not to act detrimentally on the bacteria but merely to neutralise the toxins. Probably preparations of mercury and iodine act analogously against syphilis. The insufflation of powdered sulphur has no injurious effect on the bacillus of diphtheria but it seems to destroy the streptococci; this explains the variability of the effects produced and the prompt relief obtained in cases of membranous angina as a complication of scarlet fever. Fiegel and Jakobson have proved the harmlessness of formaldehyde. Rosenberg has detected free formaldehyde in the blood and recommended the use of formamint as an internal antiseptic. Each dose contains one centigramme (one-sixth of a grain) of formaldehyde, in addition to small quantities of menthol, pepsin, hydrochloric acid, and citric acid and is given at intervals varying from every half hour to every two hours for several days to adults and in smaller doses to children; they are very palatable. Dr. Schwarzenbach has treated quite a number of cases of streptomycosis with formamint with good results. If taken at an early stage it soon brings to an end attacks of erysipelas, erythema nodosum, and acute lacunar tonsillitis. In the latter case it should be followed in from 24 to 36 hours by the administration of salicylates such as sodium salicylate, aspirin, &c. It also acts well in acute exacerbations of chronic pharyngitis in which streptococci are concerned. Formaldehyde does not irritate the kidneys and can be recommended in cases of pyelo nephritis.

The Treatment of Puerperal Fever.

In the last number of the *Revue Médicale de la Suisse Romande*, Dr. de Buman discusses curettage of the uterus at some length and arrives at the following conclusions. In cases of puerperal fever curettage should never be performed. An exact diagnosis of the diseased condition must be made. In cases of vulvar, vaginal, or cervical infection the application of tincture of iodine is useful. Débris retained in the uterus should be extracted with the finger and not by means of an instrument. Antiseptic irrigation must follow. In case of uterine infection lavage of the uterus should be performed once or twice in the first 24 hours. A solution of lysol of 1 or 2 per cent. strength is advisable as an antiseptic. If necessary this irrigation can be repeated once or twice during the first three days. An ice-bag should be applied externally and ergot administered internally. Dr. de Buman gives full clinical details of eight cases.

Zürich, Dec. 18th.

ITALY.

(FROM OUR OWN CORRESPONDENT.)

Tribute to the Tuscan Physicians who Died at their Post in the Cholera Epidemic of 1854–55

Professor Augusto Alfani of the Academy of Della Crusca delivered the other day in the Palazzo Vecchio of Florence an address, full of pathos and pictorial power, on the Tuscan practitioners who met a hero's death in the terrible explosion of cholera in 1854, the lingering effects of which did not die out till late in the following year. That was Italy's first experience, on a really extensive scale, of the Asiatic disease—previous epidemics, though formidable enough, having been comparatively milder and more localised. Well supplied at all times with practising physicians and divisional officers of health (*medici condotti*) Tuscany found herself suddenly in presence of a fell disease, which, on the principle of *omne ignotum pro mirifico*, added to its terrors, pathological and clinical, the element of the strange and the awe-inspiring, with the inevitable concomitants of suspicion and panic. In addition to its regular staff of medical men the Government of the Grand Duke enlisted an auxiliary force of 48 duly qualified physicians and 93 divisional practitioners possessing diplomas, with hospital helps of all kinds. Even with this extra equipment the resources of the profession were quite overtaxed in combating the disease, while the numbers actually working were reduced from week to week by sheer exhaustion and death. Students in medicine at stages more or less advanced in their curriculum had accordingly to be pressed into the service and so the beneficial work went on till the epidemic was at an end. In the hospitals of the large towns and in the *lazzaretti* of the rural districts the profession, old and young, spared no sacrifice of skill and labour, and in the remoter communes, particularly in the hamlets perched like eagles' nests on the Apennines, the relief service was always *en évidence*, not seldom combining with medical attendance the exertion and the daring of the "peak-storming mountaineer." One of the most formidable antagonists to cope with in this widespread conflict was the superstition, culminating in distrust, with which the peasantry and even the denizens of city slums met their benefactors. Often enough the physician or medical officer had to drink part of the potion or to swallow one of the pills prescribed before the ignorant and suspicious patient could be induced to take either. In the end the heroism and self-abnegation of the profession had its reward in the confidence inspired even in the poorest and most degraded of the sufferers; indeed, the mitigation and final disappearance of the malady was in great measure due to the success with which

panic and depressing emotion, which aggravate, as they do not invite, attack, were replaced by trust and cooperation between medical attendant and patient. Altogether fitting therefore was it that a chapter so honourable in the history of the profession should have the recognition it deserved and that the names of those who literally "died at their posts" should receive the tribute calculated (in Lord Beaconsfield's words) "not only to commemorate but to inspire." No fewer than 20 Tuscan physicians met a hero's death in the cholera visitation of 1854–55, and on the initiative of one of the survivors, Dr. Pietro Betti, a tablet artistically designed in marble has been placed to their memory in the great hall of the "Scuola di Complemento e Perfezionamento," annexed to the Hospital of the Santa Maria Nuova in Florence. The inscription, which is from the scholarly pen of Professor Michele Ferrucci, runs as follows:—

Petrus Bettius Eq. Torq. Josephian—Praep. publicae valetudini tuendae—Nomina medicorum—Quos Indica hac annis MDCCCLIIII., MDCCCLV—Late per Etruriam grassante—Aegrorum cura alacri animo suscepta—Constantes invictosque a laboribus vis morbi sustulit—Uti eorum memoria—Sancta atque sacrata posteris tradatur—Artisque salutaris faciundae cupida juventus—Immortalia domesticae laudis exempla—Aemulari discat—Marmori incisa hoc adfigi curavit.

["Peter Betti, of the Grand Order of St. Joseph, president of the board of public health, caused to be inscribed on the memorial tablet placed here the names of those physicians who in the epidemic of Asiatic cholera, which in 1854–55 devastated Tuscany, cheerfully undertook the treatment of the sufferers and unswervingly and indomitably laboured till the disease carried them off, in order that their memory may be handed down, sacro-sanct, to posterity and that the young aspirants to a medical career may learn to imitate examples, destined never to die, of honour earned in home service."] Then come the 20 names of the deceased physicians in due order, with brief biographical notices of each.

The Unrest in the Medical Student World.

On Dec. 15th the justice of the Roman students' demonstration against the intolerable conditions under which they were compelled to pursue their studies had its reward as well as justification in the opening of the cliniques (six weeks overdue) at the Policlinico. The attendance was large and the spokesmen of the occasion were the leading surgeon and the leading medical consultant of Rome (or rather Italy), Dr. Durante and Dr. Baccelli. The Senatus Academicus (chiefly in its Medical Faculty) was also represented. Dr. Durante, in congratulating the students on their resuming work, deplored the scanty support received from successive Governments by them and their esteemed master, Dr. Baccelli, in completing the Policlinico and augured a better future for all when the Policlinico itself will realise the design of its projector and founder and when, together with its full equipment for dealing with injury and disease, it will be supplemented by two other institutions, also conceived by Dr. Baccelli—that for the reception of infancy and its rescue from vice and sickness, and that for the accommodation and tendance of old age. Dr. Baccelli followed with a brilliant introductory lecture on Tuberculosis, indicating the use to which Koch's discovery had been put by the Roman school and the further developments to be looked for on the same lines. And so ends, let us hope, the "strike of the medical students" in Rome—a happy consummation which is having its counterpart in the other centres of medical study throughout the kingdom, from Turin to Palermo, from Messina to Pavia.

Dec. 18th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Diphtheria.

AT the last meeting of the Society for Diseases of Children Dr. Karl Zucker, of the Anna Children's Hospital, read a paper on diphtheria in which he dealt mainly with the prognosis and the results of treatment. The virulence of the bacterium could not be said to have diminished judging from the fact that in quite a number of rural districts, especially in mountainous regions, where anti-diphtheritic serum could not be obtained readily, the conditions of mortality and morbidity remained practically the same as before Behring's introduction of serum treatment. In other places where special methods of treatment presented no difficulty the results corresponded with those found everywhere else, consisting in a constant and remarkable fall of mortality, and in cases where prophylactic injections had been administered the spread of the disease was arrested. The character of diphtheria remained the same as in 1895 except that the gravest cases with high pyrexia, arrhythmic pulse, and early paralysis of voluntary and involuntary muscles have diminished, absolutely and relatively. The best results were obtained in the cases of croup, where the mortality fell to 3·9 per cent., whereas it was 10·9 per cent. in 1895. This was due chiefly to improvements in the details of the treatment, to greater enlightenment of the public, and to the better instruction of practitioners. As regards repeated attacks, 0·9 per cent. of the children treated in the hospital returned with a second attack and 0·13 per cent. with a third attack. The interval between the first and the next attack of diphtheria was one month up to five and a half years of age. The second or third attack was not obviously less severe or less well marked than the first and the results of the second serum treatment were about the same as the first time compared with the written hospital records of the same case.

Operative Treatment of Intestinal Carcinoma.

At one of the surgical demonstrations of which I wrote some time ago Professor Hochenegg showed three cases of Carcinoma of the Sigmoid Flexure on which he had operated by his own method several years ago. The details of his method are as follows. In the first place the tumour is caught and pulled gently forward, then the mesentery is detached from it so as to make the tumour freely moveable, the diseased section of the intestine is brought forward, and the wound in the abdominal wall is closed as much as possible. After the lapse of a few days the heteroplastic tissue is burned away by a platinum cautery and the artificial anus is closed later. The advantages of this method are obvious. There is no infection of the peritoneal cavity by fæces, as the intestine is opened after closure of the abdomen; the total amount of shock is comparatively slight—in any case, it is less than resection produces; and the secondary suture of the lumen of the bowel is easy because the walls are not overstretched, and the patient is able to regain his strength before he is operated upon the third time. The operation has been performed by Professor Hochenegg 14 times, and all the patients survived; 12 of them are still alive after a period of between two years and three and a half years. The oldest patient is now 87 years of age and being a rural postman walks many miles a day without any discomfort whatever. In one of these cases there was a fæcal calculus which measured three inches by two inches, had a circumference of eight inches, and weighed over ten ounces. It consisted of phosphate and carbonate of lime and phosphate of ammonia and magnesia; it had concentric zones and showed in its centre the remains of a cherry-stone. The calculus lay free in the lumen of the bowel, but below it there was a constriction of the canal by new growth.

The Centenary of Skoda.

On Dec. 11th the Vienna Clinical Society and the College of Medical Men united in celebrating the centenary of Skoda, the founder of both societies. The principal address was read by Skoda's last assistant, Professor von Schrötter, who was very closely associated with his teacher. A statue of Skoda was also unveiled in Pilsen, the Bohemian city where he was born, the third son of a poor blacksmith. Professor Schrötter dwelt on the great advances which Skoda made in therapeutics and physical diagnosis; he also delineated very vividly his life, his persevering struggles, and his ultimate success.

A Case of Lichen Ruber Acuminatus Universalis.

At a recent meeting of the Dermatological Society Professor Ehrmann showed a man, 35 years of age, who had suddenly developed a number of small nodules on the scalp, and within three weeks all parts of the body where hair follicles existed were covered with a similar eruption. This eruption consisted of small horny nodules supported on a hyperæmic base and was especially abundant on the extensor surface of the extremities as well as on the follicles of the skin on the back of the fingers and hands, which latter situation was characteristic of the disease. The epidermis of the palms of the hands and soles of the feet was torn, hard, and broken, and the scalp was now covered with dry detritus, as in psoriasis or seborrhœa. The disease has been present for three months. The prognosis is uncertain, for

such cases may either continue for years, leading ultimately to progressive cachexia and death, or may terminate in complete recovery at the end of a year or so. In lichen ruber planus the localisation is different: the nodules are flat and glossy like wax, and the scalp is mostly unaffected. The treatment consisted in subcutaneous injections of sodium cacodylate. The French dermatologists call such cases pityriasis rubra pilaris (Devergie).

Dec. 16th.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Work of the Muktesar Laboratory.

THE experimental work done at the Muktesar Laboratory in the Naini Tal district is so intimately related with similar investigations concerning human disease as to be of the greatest interest. Rinderpest has been a terrible scourge amongst the cattle in many parts of India and the results obtained by a serum prepared at the above laboratory have been exceedingly good. During the year 1904 no less than 590 outbreaks were recorded. The number of cattle inoculated was 56,483, of which only 263, or 0·46 per cent., died from the disease afterwards. Besides anti-rinderpest serum similar preparations for anthrax and hæmorrhagic septicæmia have been prepared. The disease known as surra has, however, so far baffled all experimenters both here and abroad. Attempts have been made to attenuate the trypanosoma by means of cultures and by passing it through the bodies of animals other than equines but without success. The disease known as dourine has also caused great loss to horse-owners and to Government and great efforts are being made to discover a remedy. An immense amount of work is being done under the direction of Dr. A. Lingard at the institution. With over seven square miles of ground he is his own forest officer and grass and fodder for the cattle are also produced. Veterinary officers receive a training here and there are 32 veterinary assistants also under instruction. The preparation of serums, the work of original research, and that of imparting education is more than one man can do, and with the rapid growth of the work assistance is called for.

A Medical College for the United Provinces.

I am pleased to report that a great effort is being made to establish a medical college and hospital for the United Provinces in commemoration of the visit of the Prince and Princess of Wales to India. The proposal was mooted 35 years ago but has until recently been dropped. Already some 5 lakhs have been subscribed. The scheme includes a hospital, class rooms, a library, museum, laboratory, and residence for students and professors. The whole of the United Provinces seem awakened to the necessity for this institution and the cities are vying with each other in the generosity of their support. If the public show a sufficient patronage towards its establishment Government will contribute to its maintenance and development.

The Plague Epidemic.

The epidemic of plague is following along lines similar to those of previous years. A temporary increase in the mortality of one week is followed by a small set-back the next, but there is little doubt of the indications of a further development with the new year. For the week ending Nov. 18th there were 2826 deaths recorded. The local figures are: Bombay Province, 1426; Madras Province, 51; Bengal, 223; United Provinces, 272; the Punjab, 233; Burmah, 66; the Central Provinces, 213; Mysore State, 104; Hyderabad State, 92; Central India, 143; and Kashmir, three. These figures show an increase in six provinces and a small diminution in the deaths for the others. Continued efforts are being quietly made to popularise inoculation but the numbers who accept this protection are so small as to have no appreciable effect on the local outbreaks.

The Nursing at Calcutta Hospitals.

Hospital Sunday has just been held in Calcutta and an appeal has been circulated to support the Hospital Nurses' Institution. This body undertakes to supply nurses (and their support) to several of the local hospitals and a few are lent to the sanatorium at Darjeeling whilst others obtain private employment. The Government of Bengal trebles the amount subscribed by the public but as this amounted to only Rs.42,000 the income barely covered the expenditure. There are 120 nurses to be maintained. It seems very anomalous that the nursing of the Calcutta hospitals should be conducted through an outside body and not form part of the institutions themselves. Each hospital should have its own staff of nurses and its own class of nurses directly under its own control and management. For some of the hospitals at least the nurses should not be interchangeable and the European hospital should have European nurses. As it is the public are called upon to subscribe for the nursing institution as if nursing was not part of the philanthropic work of the hospital and as essential as any other part of it. The small support given to the hospitals by the native community both in Calcutta and Bombay is very noteworthy.

Necessary Sanitation.

The Royal visit will have the effect of an extra cleaning for the several towns which will be visited. Bombay will spend some additional Rs.10,000 and Calcutta about the same if not more. This is all very well, but cleaned up thoroughfares only hide the dirt, so to speak, of the bye-lanes and unfrequented passages. It is in these that extra conservancy is required in a strictly sanitary point of view but it is these very places where cleansing is generally so neglected.

Dec. 5th.

Obituary.

JAMES LYNASS, M.B., B.CH., B.A.O. R.U.I.

THE sudden death has occurred of one of the most able of the younger practitioners of Belfast, Dr. James Lynass. For some time he had been ailing and his friends noticed his altered and rather prematurely aged appearance, apparently the result of chronic Bright's disease. He had for a period dieted himself, and was attending to his ordinary duties when suddenly on the evening of Dec. 4th he was seized with cerebral hæmorrhage, became unconscious, and died the next morning. He was 40 years of age. Dr. Lynass was a Belfast man, where he was educated. Studying at Queen's College, Belfast, where he was an excellent student, he graduated M.B. of the Royal University in 1892. The next year he was appointed resident medical officer at the Belfast union infirmary, a post which he held until he started practice in Belfast. For a time he was assistant surgeon to the Belfast Hospital for Sick Children but in 1899 he resigned this post on being appointed visiting surgeon to the Belfast union infirmary, where he introduced many most useful improvements and where he did excellent surgical work. Dr. Lynass had a very sound knowledge of his profession, worked hard, and was liked by his patients and fellow practitioners, and his early demise is a distinct loss to the public and the medical faculty in Belfast. He leaves a widow to mourn her loss. At the funeral on Dec. 7th there was a large attendance of his friends and patients.

WILLIAM ARTHUR PAYNE, M.A., M.B., B.CH. OXON., M.R.C.S. ENG., L.S.A.

Dr. W. A. Payne, who died on Nov. 30th, received his early education at Cheltenham and afterwards proceeded to Pembroke College, Oxford, taking the degree of B.A. in 1877. On leaving Oxford he completed his medical studies at St. Bartholomew's Hospital. After serving a term as house surgeon to the Richmond Hospital, Surrey, he was appointed junior, and subsequently senior, resident medical officer to the Birmingham and Midlands Children's Hospital, and was for many years an officer of the latter institution. After relinquishing his hospital resident appointments he practised for a time in the Midlands, but in the early "nineties" moved to Ilfracombe. At Ilfracombe Dr. Payne was for many years an honorary medical officer to the Tyrrell Cottage Hospital and for a shorter period district medical officer to the Barnstaple union; he also held various club and other appointments.

Sensitive and conscientious almost to a fault Dr. Payne was one of those whom general practice taxes almost to the furthest limit of their endurance. His was not a nature to content itself in the hour of defeat with the mere,

although comforting, assertion, "I have done my best," but rather to subject his treatment to rigid self-cross-examination, and so honest was he and so trustful of a like disposition in others that he made no secret to them of any fancied error in diagnosis or treatment. His long experience in Birmingham had given him a very considerable knowledge of the diseases of children and his opinion on difficult and obscure cases of this kind was a valued one. In the early days of the antitoxin treatment of diphtheria Dr. Payne was one of the first to insist that by bacteriological examination alone could cases of tonsillitis be safely differentiated in children, and that it was safer when in doubt to inject a suspected case than to await confirmation which might arrive too late for antitoxin treatment to be of any avail.

In 1902 he removed to Barford in Warwickshire where he practised to within a few days of his death. He died from pneumonia, after five days' battle with a disease which calls forth all the sufferer's reserve forces; in the case of Dr. Payne any such reserve fund had been expended long ago to the advantage of others. He leaves a widow and one son to mourn his passing away and their grief will be shared by many of all classes, both in Devon and the Midlands.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Karl Davids, surgeon-general in the German fleet.—Dr. Tarénetski, formerly professor of anatomy in the Military Medical Academy, St Petersburg.—Dr. Felix Fränkel, a surgeon of much promise who was attached to the Nürnberg city hospital. He was only 32 years of age and his death occurred quite suddenly.—Dr. Ernst Ziegler, professor of pathological anatomy in the University of Freiburg, at the age of 58 years. He was assistant to Rindfleisch in Würzburg and afterwards professor in Zürich and Tübingen before being appointed to Freiburg in 1889. His text-book on general and special pathological anatomy is well known. He also published numerous original researches and was the founder of two journals—viz., the *Beiträge zur Pathologischen Anatomie und Allgemeinen Pathologie* and the *Centralblatt für Allgemeine Pathologie und Pathologische Anatomie*.—Dr. Ivan Sechenoff, formerly professor of physiology in the University of Moscow, at the age of 75 years. He was a pupil of E. du Bois-Reymond and of Helmholtz and afterwards became professor in the Military Medical Academy, St. Petersburg, and then in Odessa before being appointed to Moscow in 1889. His special researches dealt principally with the physiology of the blood and of muscles and nerves.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having successfully passed the Final Examination for the Fellowship of the College and having complied with the by-laws, the Council conferred the Diploma of Fellow upon them on Dec. 14th:—

Cyril Beresford Howse, M.R.C.S., L.R.C.P., London Hospital; Alfred Lucette Horne, M.B., B.S. Lond., M.R.C.S., L.R.C.P., St. Thomas's Hospital; Ernest William Hey Groves, M.D., B.S., B.Sc. Lond., M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; Frederick Augustus Hadley, M.R.C.S., L.R.C.P., King's College Hospital; John Francis Cunningham, M.R.C.S., L.R.C.P., St. Thomas's Hospital; Philip Roscoe Wrigley, M.R.C.S., L.R.C.P., Victoria University, Manchester; Harold Walker, M.A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P., Cambridge University and St. Bartholomew's Hospital; Eric Bayley, M.B., B.S. Lond., M.R.C.S., L.R.C.P., Charing Cross Hospital and London Hospital; Sidney Arthur Boyd, M.B., B.S. Lond., M.R.C.S., L.R.C.P., Charing Cross Hospital and London Hospital; Maurice Anthony Miller Fitzmaurice-Kelly, M.B. Lond., M.R.C.S., L.R.C.P., St. Mary's Hospital; Gerald Stephen Hughes, M.B., B.S. Lond., M.R.C.S., L.R.C.P., Middlesex Hospital; Harold Balme M.R.C.S., L.R.C.P., King's College Hospital; Joseph Burfield, M.B., B.S. Lond., M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; Eardley Lancelot Holland, M.B., B.S. Lond., M.R.C.S., L.R.C.P., King's College Hospital; Charles Derwent Pye-Smith, M.B., B.S. Lond., M.R.C.S., L.R.C.P., Guy's Hospital; Philip Edward Homer Adams, B.A. Oxon., M.R.C.S., L.R.C.P., Oxford University and London Hospital; Leonard Smith Talbot, M.B., Ch.B. New Zealand, D.P.H. Camb., M.R.C.S., L.R.C.P., Otago University, New Zealand, and London Hospital; Charles Coley Choyce, M.D. Edin., B.Sc. New Zealand, Edinburgh University and London Hospital; Robert Ernest Kelly, M.D., B.Sc. Liverp., Liverpool University; Norman Patterson, M.B., B.Ch. Edin., Edinburgh University and London Hospital; John Stephenson, Captain, I.M.S., M.B. Lond., M.P., Ch.B. Vict., Manchester and King's College Hospital; and Garnett Wright, M.B., Ch.B. Edin., Edinburgh University.

50 candidates presented themselves for the above examination, of whom 22 passed and 28 were referred.

The following gentleman having previously passed the Final Examination for the Fellowship and having now complied with the regulations, the diploma of Fellow has been duly conferred upon him: Harold William Wilson, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital.

The following gentlemen having successfully passed the examinations for the Licence in Dental Surgery and having complied with the by laws, the licence was conferred upon them by the Council of the College on Dec. 14th:—

Wesley Barritt, National Dental Hospital; George Henry Berwick, Royal Dental Hospital; Thomas Tebbutt Blaxley, Birmingham; John Arnold Bowes, Guy's Hospital; David Brewster, Royal Dental Hospital; Samuel Milnes Buckley, Manchester; Ernest Thorne Clarkson, Royal Dental Hospital; William Cowden, Manchester; John Arthur Crump, Manchester; Henry Dagger, Liverpool; Geoffrey Dawson, Royal Dental Hospital; William Thomas Dean, Guy's Hospital; John Gerald Atkinson Fairbank, M.B. Lond., M.R.C.S., L.R.C.P., Royal Dental Hospital; George William Geekie, B.A. Oxon., National Dental Hospital; Arthur Tidswell Hanson, Manchester; Charles Hatt, Frank William Herbert, and John Fulton Houston, Royal Dental Hospital; Samuel Isaacs, Manchester; Edmund Davis Reed Jacob, Guy's Hospital; Albert James Jones, Manchester; Bertram Charles Kirkman, Liverpool; Fritz Julian Messer, John McBride, Edwin Noyes Plummer, and George Eugene Rice, Guy's Hospital; Robert Rose, Birmingham; Arthur Thomas Spaven, Manchester; Oran Edgar Starr, Indianapolis, U.S.A., and Royal Dental Hospital; George Frederick Taylor and Edwin Spencer Tebbutt, Royal Dental Hospital; Wilfred Boyd Thompson, Manchester; John St Andrew Titmas, William Collingwood Tuck, and Francis James Tuckett, Royal Dental Hospital; Henry Johnson Weighell, and Charles Weller, Guy's Hospital; Joseph Hindle Westmoriand, Manchester; Alfred Owen Williams, Liverpool; Richard Stanley Witcomb, Guy's Hospital; and Albert Blagbrough Wolfenden and Howard Wordsworth, Royal Dental Hospital.

52 candidates were examined by the surgical section of the Board of Examiners and 58 by the dental section. Of these 28 were approved and 24 were rejected by the surgical section, and 46 were approved and 12 were rejected by the dental section.

UNIVERSITY OF OXFORD.—At the first examination for the degree of Bachelor of Medicine the following candidates were successful in the under-mentioned subjects:—

Organic Chemistry.—Henry Cuthbert Bazett, Wadham College; James Leatham Birley and Percy Norman Cave, B.A., University College; Arthur Ryland Chavasse, Hertford College; Noel Godfrey Chavasse, Trinity College; Arthur William Donaldson, Hertford College; George Edward Downs, Magdalen College; Harold Edward Gibson, B.A., Queen's College; Walter Douglas Kennedy, B.A., and Hugh Gwilym Morris, University College; William Jenkins Oliver, Oriel College; Charles Joseph Gordon Taylor, University College; Gerald Earl Thornton, B.A., Oriel College; Wathen Ernest Waller, University College; and Rodolph Charles Wingfield, Trinity College.

Materia Medica and Pharmacy.—Richard Frederick Butlin Bowes, B.A., Queen's College; Harold Martin Mörschell, Christ Church; and Alan Everley Taylor, Trinity College.

Human Anatomy and Human Physiology.—Harry Greenwood Butterfield, Wadham College; Ernest Arthur Ramsden and Percy Tyrell Spencer-Phillips, New College; and Bertram Alfred Wood Stone, B.A., Brasenose College.

In the second examination for the degree of Bachelor of Medicine the following candidates were successful:—

Pathology.—Haldinstein David Davis, B.A., Balliol College; Richard Evans, M.A., Jesus College; Reginald Charles Jewsbury, B.A., Christ Church; Arthur Salusbury MacNalty, B.A., Non-Collegiate; and William Duncan Sturrock, B.A., Magdalen College.

Forensic Medicine and Public Health.—George Hely-Hutchinson Almond, B.A., Hertford College; Howard Barclay Billups, M.A., Worcester College; Duncan Davidson, B.A., Brasenose College; Haldinstein David Davis, B.A., Balliol College; Thomas Harris, B.A., Non-Collegiate; Henry Austin Philpot, B.A., New College; Henry Robert Ramsbotham, B.A., Brasenose College; James Edmund Rutherfurd, B.A., Corpus Christi College; William Duncan Sturrock, B.A., Magdalen College; Arthur George James Thompson, B.A., Queen's College; and Henry Letheby Tidy, B.A., New College.

Medicine, Surgery, and Midwifery (thereby completing the M.B. examination).—Henry Hugh Baker, B.A., and Launcelot Toke Burra, B.A., University College; Haldinstein David Davis, B.A., Balliol College; James Sholto Cameron Douglas, B.A., Christ Church; Charles James Pinching, B.A., St. John's College; Henry Charles Gustavus Semon, B.A., Magdalen College; Herbert Havasse Squires, B.A., Hertford College; William Duncan Sturrock, B.A., Magdalen College; and Henry Letheby Tidy, B.A., New College.

UNIVERSITY OF LONDON.—At the examination for the degree of M.S. held in December the following satisfied the examiners:—

Janet Mary Campbell, M.D., London (Royal Free Hospital) School of Medicine for Women; *Robert Valentine Dolbey, London Hospital; Ernest W. H. Groves, M.D., B.Sc. (University medal), St. Bartholomew's Hospital; and Alexander Moxon Webber, Guy's Hospital.

* Obtained the number of marks qualifying for the University medal.

N.B.—This list, published for the convenience of candidates, is issued subject to its approval by the Senate.

UNIVERSITY OF LIVERPOOL: DIPLOMA IN TROPICAL MEDICINE.—The examinations for the Diploma in Tropical Medicine were held on Dec. 11th, 12th, and 13th, when the following gentlemen satisfied the examiners and will obtain the diploma:—

A. Brown, M.B., Ch.B.; T. C. Caldwell, M.B., Ch.B.; A. Critten, M.D.; R. M. MacFarlane, M.B., Ch.B.; Captain E. C. G. Maddock, M.B., Ch.B., I.M.S.; J. J. Moore, M.R.C.S., M.R.C.P.; P. A. H. Radcliffe, M.B., Ch.B.; and J. C. Young, M.A., M.B., C.M.

TRINITY COLLEGE, DUBLIN.—At the final examination in medicine held in Michaelmas term the following candidates were successful:—

George E. Nesbitt, Howard English, John W. Burns, Robert B. Jackson, James M. Harold, Cyril H. M'Comas, Hubert R. R. Fowler, Thomas L. de Courcey, Alfred C. Elliott, Carlile Kelly, Edward D. Atwell, Benjamin Johnson, William C. Mac Fetridge, William I. Thompson, Daniel M. Corbett, John B. B. Whelan, Ernest C. Phelan, Henry D. Drennan, and Thomas T. H. Robinson.

At examinations for the Diploma in Public Health held in Michaelmas term the following candidates were successful:—

Part I.—Lionel F. Smith and Arthur M. Mac Laughlin.
Part II.—Arthur M. Mac Laughlin and Lionel F. Smith.

A CHRISTMAS entertainment for the in-patients of the Hospital for Sick Children, Great Ormond-street, London, will be held in the hospital on Thursday, Dec. 28th, between 4 and 6 P.M.

CONGRESS OF AMERICANISTS.—It is announced in the December number of *Man* that the Fifteenth International Congress of Americanists will be held in Quebec from Sept. 10th to 16th, 1906.

UNIVERSITY COLLEGE, LONDON.—Mr. P. M. Heath has been reappointed by the council of the University College surgical registrar to University College Hospital for a further period of one year from Jan. 1st, 1906. The council has conferred on Dr. G. A. Buckmaster the title of assistant professor of physiology.

INCIDENT IN A RUSSIAN TOWN HOSPITAL.—In the Moscow town (Sokolnitz) hospital about a month ago some of the medical and other officials of the institution, having got rid of the principal physician, elected a temporary government for the institution by vote. For a time the authorities acquiesced but, says the *Novoe Vremya*, the usurpers have quarrelled amongst themselves and the exiled physician has been reinstated in his post.

PRESENTATION TO A MEDICAL PRACTITIONER.—On the occasion of the fourth annual dinner of the officers and staff of the Acton district council at the Trocadéro Restaurant, London, W., on Nov. 22nd Mr. G. A. Garry Simpson, M.R.C.S. Eng., was presented by Mr. William Hodson, clerk to the council, with a case of surgical instruments as a token of his brother officials' regard and esteem.

BOYCOTTED LADY MEDICAL STUDENTS.—In consequence of the stoppage of the classes in the Women's Medical Institute, according to the *Novosti*, a large number of lady students left St. Petersburg and some of them went abroad to study at foreign universities, especially Geneva. Many of them, it is said, have returned to Russia because they were boycotted abroad on account of their indifference to the events in their country, and now at home the young people have also decided to boycott them.

ROYAL ALBERT ASYLUM, LANCASTER.—At the monthly meeting of the central committee held on Dec. 15th Dr. G. E. Shuttleworth of Richmond-hill, Surrey, who was for 23 years medical superintendent of the Royal Albert Asylum, Lancaster, the well-known institution for the feeble-minded of the northern counties, was appointed honorary consulting physician to that institution, on the motion of the chairman, the Right Hon. Sir John T. Hibbert, K.C.B., seconded by Colonel Foster, D.L., vice-chairman.

DONATIONS AND BEQUESTS.—Under the will of ex-Provost Alexander Hay Moncur of Dundee £5000 are bequeathed to the Sidlaw Sanatorium for Consumption; £3000 to the Bannatyne Home of Rest, Newtyle; £1000 to the Royal Victoria Hospital for Incurables, Dundee; £500 to the Dundee Royal Infirmary; and £500 to the Poor Sick Nursing Society, Dundee.—By the will of Mr. Charles Augustus Francis Schiller of Bournemouth his estate, valued at £9877 gross, subject to a life interest and small legacies, is directed to be converted into money, and the proceeds paid to the treasurer of the German Hospital, Dalston, N.E., for the general purposes of that institution, in memory of the testator's late father and mother.—St. Mary's Hospital has received a donation of £200 from Mr. Thomas Stainton towards the sum required for the Clarence Wing.—Captain E. Partington announced his intention to present to the borough of Glossop a sum of £30,000 for the erection and endowment of a nursing and convalescent home for the sick poor.—A lady has generously offered to give £1000 towards the £3000 debt to the bankers incurred by the Royal Hospital for Incurables, Putney, if the other £2000 are obtained by the New Year.

BOOKS, ETC., RECEIVED.

BAILLIÈRE, TINDALL, AND COX, 8, Henrietta-street, Covent Garden, W.C.

A Text-book of Psychiatry. For Physicians and Students. By Leonardo Bianchi, M.D., Professor of Clinical Psychiatry and Neuropathology in the Royal University of Naples, Minister of Public Instruction in Italy. Authorised translation from the Italian. By James H. Macdonald, M.B., Ch.B. Glasg., Senior Assistant Physician to the Govan District Asylum. Price 21s. net.

Lectures on Clinical Psychiatry. By Dr. Emil Kraepelin, Professor of Psychiatry in the University of Munich. Authorised translation from the second German edition. Revised and edited by Thomas Johnstone, M.D. Edin., M.R.C.P. Lond., Member of the Medico-Psychological Association of Great Britain and Ireland. Second English edition. Price 10s. 6d. net.

Physical Diagnosis. By Richard C. Cabot, M.D., Instructor in Medicine in Harvard University. Third edition, revised and enlarged. Price 15s. net.

BLACK, A. AND C., Soho-square, W.C.

Who's Who. 1906. Price 7s. 6d. net. Who's Who Year-book. Price 1s. net.

CHURCHILL, J. AND A., 7, Great Marlborough-street, W.

Transactions of the Ophthalmological Society of the United Kingdom. Vol. XXV. Session 1904-1905. With List of Officers, Members, &c. Price 12s. 6d. net.

Reports of the Society for the Study of Disease in Children. Volume V. Session of 1904-1905. Editor, George Carpenter, M.D. Price 12s. 6d.

CONSTABLE, ARCHIBALD, AND COMPANY, LIMITED, 16, James street, Haymarket.

The Bacteriology of Peritonitis. By Leonard S. Dudgeon, M.R.C.P. Lond., Bacteriologist to St. Thomas's Hospital and Joint Lecturer on General Pathology in the Medical School, and Percy W. G. Sargent, M.A., M.B., B.C. Cantab., F.R.C.S. Eng., Surgeon to Out-patients, Victoria Hospital for Children, Chelsea. Price 7s. 6d. net.

FISCHER, GUSTAV, Jena.

Der Einfluss der Zentrale der Berliner Rettungsgesellschaft auf die Krankenversorgung Berlins. Von Prof. Dr. George Meyer. Berlin. Abdruck aus dem Klinischen Jahrbuch. Fünfzehnter Band. Price M.1.80.

Die Allgemeine Chirurgie in 50 Vorlesungen. Ein kurzgefasstes Lehrbuch für Ärzte und Studierende. Von Dr. Edmund Leser, Professor an der Universität in Halle. Preis, brosch, M.12; geb., M.14.

HOUGHTON, MIFFLIN, AND COMPANY, Boston and New York. (The RIVERSIDE PRESS, Cambridge.)

A Memoir of Dr. James Jackson, with Sketches of his Father, Hon. Jonathan Jackson, and his Brothers, Robert, Henry, Charles, and Patrick Tracy Jackson, and Some Account of their Ancestry. By James Jackson Putnam, M.D. Price $2.50 net.

JOHN BALE, SONS, AND DANIELSSON, LIMITED, 83, Great Titchfield-street, Oxford-street, W.

Bale's Dental Surgeon's Daily Diary and Appointment Book. Price, ordinary 7s.; interleaved, ruled, or blotting, 8s. 6d.

MACMILLAN AND CO., LIMITED, London.

A System of Medicine. By Many Writers. Edited by Thomas Clifford Allbutt, M.A., M.D., LL.D., D.Sc., F.R.C.P., F.R.S., F.L.S., F.S.A., Regius Professor of Physics in the University of Cambridge, Fellow of Gonville and Caius College, and Humphry Davy Rolleston, M.A., M.D., F.R.C.P., Physician to St. George's Hospital and to the Victoria Hospital for Children, sometime Fellow of St. John's College, Cambridge. Vol. I. Price 25s. net.

REBMAN, Limited, 129, Shaftesbury-avenue, W.C.

Clinical Obstetrics. By Robert Jardine, M.D. Edin., M.R.C.S. Eng., F.F.P. & S. Glasg., F.R.S. Edin., Professor of Midwifery in St. Mungo's College, Glasgow, Senior Physician to the Glasgow Maternity Hospital, Examiner in Midwifery to the Scotch Conjoint Board. Second edition. Price 17s. net.

SCIENTIFIC PRESS, LIMITED, 28 and 29, Southampton-street, Strand, W.C.

Notes on General Practice. By S. M. Hebblethwaite, M.D. Lond. &c. Price 3s. 6d. net.

SMITH, ELDER, AND CO., 15, Waterloo-place, S.W.

The Source of the Blue Nile. A Record of a Journey through the Soudan to Lake Tsana in Western Abyssinia and of the Return to Egypt by the Valley of the Atbara, with a Note on the Religion, Customs, &c., of Abyssinia. By Arthur J. Hayes, L.S.A. Lond., Medical Officer, Quarantine Office, Suez. And an Entomological Appendix by E. B. Poulton, LL.D., F.R.S., Hope Professor of Zoology in the University of Oxford. With illustrations and maps. Price 10s. 6d. net.

TILLGE'S BOGHANDEL, Copenhagen. (ANGLO-DANISH PUBLISHING CO. (Holger Tillge), 188, Strand, London, W.C.)

My System. Fifteen Minutes' Work a Day for Health's Sake. By J. P. Müller, Ex-Lieutenant of Engineers, Klampenborg, Denmark. Authorised translation by G. M. Fox-Davies from the fifth edition of the Danish original. Edition de Luxe. With 44 illustrations, an illustrated chart, and a time table. Price 5s. net.

WAHLSTRÖM OCH WIDSTRANDS FÖRLAG, Stockholm.

Diet och Föda. Betraktade i Sitt Förhallande till Styrka och Uthallighet, Träning och Sport. Af Alexander Haig, M.A., M.D. Oxon., R.R.C.P., Läkare vid Metropolitan Hospital och Royal Hospital för Barn och Kvinnor. Bemyndigad Öfversättning fran femte Engelska Upplagan. Price not stated.

WALKER, JOHN, AND CO., LIMITED, Farringdon House, Warwick-lane, E.C.

Diaries for 1906: "Quarterly" pocket (vest), No. 611, long-grain cases. Price 1s. No. 1, (vest pocket), 2 silver corners. Price not stated. No. 1/111 pocket (vest). Solid basil. Price 1s. No. 2/62. Long-grain. Price 1s. 6d. No. 3/53. Cloth, limp. Price 9d. No. 4/504. Solid seal. With pocket's, "back-loop," and pencil. Price 2s. No. 4/64. Long-grain. Price 2s. 6d. No. 7/D.200. "Arboreta" loose leaf Diary. Basil. Price 3s. No. 15/425. "Graphic." Solid pigskin. Price 1s. 6d. No. 17/417. "Graphic." Solid basil. Price 1s. 6d.

WELLBY, PHILIP, 6, Henrietta-street, Coventt Garden, W.C.

The Mastery of Death. By A. Osborne Eaves, author of "The Colour Cure," "The Art of Luck," "Modern Vampirism," &c. Price 2s. 6d. net.

WILLIAMS AND NORGATE, 14, Henrietta-street, Covent Garden, W.C.

The Inflammation Idea in General Pathology. By W. H. Ransom, M.D., F.R.S., F.R.C.P., Consulting Physician to the General Hospital, Nottingham. Price 7s. 6d.

WILSON, EFFINGHAM, 54, Threadneedle-street, E.C.

A Practical Guide to the Death Duties and to the Preparation of Death Duty Accounts. By Charles Beatty, Solicitor of the Estate Duty Office, Somerset House. Price 4s. net.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

BENT, PERCY C. V., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon at the Evelina Hospital for Sick Children, S.E.

BURGESS, A. H., F.R.C.S. Eng., M.B., M.Sc. Vict., has been appointed Assistant to the Professor of Systematic Surgery in the Victoria University of Manchester.

FLETCHER, H. N., M.B., Ch.B., F.R.C.S. Edin., has been appointed Junior Resident Medical Officer at St. Mary's Hospital, Whitworth-street, Manchester.

GOLDSMITH, B. K., M.B., Ch.B. Edin., D.P.H., has been appointed House Surgeon at Clifford-street Hospital, Manchester.

GRÜNBAUM, OTTO, M.D. Cantab., has been elected an Assistant Physician to the London Hospital.

HARRISON, PERCY ERNEST, L.R.C.S., L.R.C.P. Irel., has been appointed Assistant House Surgeon at the Stockport Infirmary.

HESLOP, J. W., M.B., B.S. Durh., M.R.C.S., L.R.C.P. Lond., has been appointed Surgical Registrar to the Royal Infirmary, Newcastle-on-Tyne.

JACKSON, F. D. SELMES, M.R.C.S., L.R.C.P. Lond., has been appointed House Physician at the Evelina Hospital for Children, S.E.

JORDAN, ALFRED C., M.D. Cantab., has been appointed Medical Officer to the Electrical Department of the Metropolitan Hospital.

RALPHS, F. C., M.B., Ch.B. Vict., has been appointed Senior Resident Medical Officer at St. Mary's Hospital, Whitworth-street, Manchester.

REW, GEORGE R., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant House and Visiting Surgeon at the Stockport Infirmary.

SHAW, W. F., M.B., Ch.B. Vict., has been re-appointed Resident Obstetric Assistant Surgeon and House Surgeon at St. Mary's Hospital, Whitworth-street, Manchester.

WILSON, DAVID, M.R.C.S., L.R.C.P. Lond., has been appointed Assistant House Surgeon at the Evelina Hospital for Sick Children, S.E.

WRIGHT, WILLIAM, M.B., Ch.B. Vict., F.R.C.S. Eng., has been appointed Lecturer on Anatomy at the Middlesex Hospital Medical School.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM, UNIVERSITY OF.—Demonstratorship in Anatomy. Stipend £175 per annum.

BRISTOL ROYAL INFIRMARY.—Pathologist, Bacteriologist, and Director of Clinical Laboratories. Salary £250 per annum. Also Medical Registrar and Surgical Registrar.

BRISTOL, UNIVERSITY COLLEGE, FACULTY OF MEDICINE.—Professor of Pathology.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Resident Medical Officer, unmarried. Salary £80 per annum.

CHELSEA INFIRMARY, Cale-street, S.W.—Second Assistant Medical Officer. Salary £70 per annum, with board, apartments, and washing.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—House Physician for six months. Honorarium of £25, with board, residence, laundry, &c.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Eight qualified Clinical Assistants.

HARTSHILL, STOKE-UPON-TRENT, NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL.—Junior House Surgeon. Salary £50 per annum, with board, apartments, and washing.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—Assistant House Surgeon. Honorarium £20 for six months, with residence, board, and washing.

LONDON FEVER HOSPITAL, Liverpool-road, N.—Resident Medical Officer. Salary £250, with board and residence.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury, W.C.—Resident Medical Officer. Salary £100 per annum, with board and residence.

NORTHAMPTON GENERAL HOSPITAL.—Honorary Assistant Surgeon.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House Surgeon. Salary £100 a year, with board, lodging, and washing.

ROYAL LONDON OPHTHALMIC HOSPITAL, City-road, E.C.—Refraction Assistants. Salary £25 a year, with lunch.

RYDE, ROYAL ISLE OF WIGHT COUNTY HOSPITAL.—Resident House Surgeon. Salary £90.

ST. LEONARD, SHOREDITCH, INFIRMARY, Hoxton-street, N.—Second Assistant Medical Officer for six months. Salary £100 per annum, with rations, washing, and apartments.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone-road, N.W.—Clinical Assistants.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—Two Assistant Physicians and One Assistant Physician or Surgeon for Diseases of the Throat, Nose, and Ears. Also Pathologist. Salary £100 per annum.

SOUTHPORT INFIRMARY.—Resident Junior House and Visiting Surgeon, unmarried. Salary at rate of £70 per annum, with residence, board, and washing.

STAFFORD, STAFFORDSHIRE GENERAL INFIRMARY.—Assistant House Surgeon for six months. Honorarium of £41, with board, residence, and laundry.

STOCKPORT INFIRMARY.—Junior Assistant House Surgeon for six months. Salary at rate of £40 per annum, with board, washing, and residence.

TIVERTON, DEVONSHIRE, INFIRMARY AND DISPENSARY.—House Surgeon and Dispenser. Salary £80, and all found.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House Physician for six months. Honorarium at rate of £75 per annum, with board, lodging, and washing.

Births, Marriages, and Deaths.

BIRTHS.

GALLIE.—On Dec. 16th, at Forest Lodge, Standford, Liphook, Hants, the wife of Captain J. Stuart Gallie, R.A.M.C., of a daughter.

GENGE.—On Dec. 16th, at Encombe, Lansdowne-road, Croydon, Catherine, the wife of G. Gilbert Genge, M.D., B.S. Lond., D.P.H. Camb., of a son.

OLIVEY.—On Dec. 11th, at Pelham House, Poole, Dorsetshire, the wife of J. M. A. Olivey, B.A. Cantab., M.R.C.S., of a son.

PARSONS.—On Dec. 13th, at Guibal-road, Lee, S.E., the wife of F. G. Parsons, F.R.C.S., of a son.

MARRIAGES.

BAINBRIDGE—SMITH.—On Dec. 13th, at the South Croydon Wesleyan Church, Francis Arthur Bainbridge, M.A., M.D., D.Sc., M.R.C.P., to Hilda Winifred, daughter of the Rev. Edward Thornton Smith, Wesleyan Minister.

FORSYTH—REID.—On Dec. 12th, at St. Mary's, Stoke Newington, by the Rev. Stanley Power, Charles R. P. Forsyth, M.B., Ch.B., M.R.C.P. Lond., eldest son of the late Rev. James F. Forsyth, M.A., and of Mrs. Forsyth, Stoke Newington, to Emma Josephine, youngest daughter of T. Reid, St. Anne's, Draperstown, co. Derry, and of the late Mrs. Reid.

DEATHS.

DUNCAN.—On the 16th inst., Elizabeth Gertrude (Bessie), beloved wife of Horace Duncan, of 11, Bolton-street, Piccadilly, eldest daughter of the late Rev. S. J. Hulme, M.A., rector of Bourton-on-the-Water.

LANGDON.—On Dec. 18th, at Northgate House, Winchester, Thomas Charles Langdon, F.R.C.S.

MATTERSON.—On Dec. 15th, at Langenhoe Rectory, Colchester, Robert Timothy Matterson, M.R.C.S. Eng., L.R.C.P. Edin.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

MEDICAL MEN RULED BY WORKMEN: CONTRACT PRACTICE EVILS.

To the Editors of THE LANCET.

SIRS,—The nineteenth century has been remarkable for the great increase of knowledge and the progress of science that have taken place in it. The art and science in medicine and surgery have advanced, as we think, no less than that in other branches of learning. The members of the medical profession as a whole are now probably better informed and more highly educated than they ever were before and, may I add, are as philanthropic and altruistic as ever. It seems therefore a strange thing that in order to practise their profession at the present time some medical men have deliberately placed themselves under the rule and dictatorship of workmen who are their inferiors both socially and intellectually. When we come to inquire into the reason for this topsy-turvy arrangement, whereby the educated subject themselves to the uneducated, the most prominent one appears to be that they do it in order to secure for themselves a fixed and tolerably certain income. The idea that it is done from motives of philanthropy is hardly tenable. That it is done to raise the honour and dignity of the profession is incredible. Granted that it is both philanthropic and honourable to supply skilled medical advice and efficient remedies to poor people, cannot all this be done in a more dignified manner? Cannot we devise means by which this may be accomplished without our profession being disgraced by medical men eagerly seeking employment under a class of men who are more fitted to be their servants than their masters? The workmen, who are elected by their fellows to rule over the doctors who are to attend them and their families for a few pence a week, may be excellent men and well skilled in their own sphere of work but not in matters relating to the practice of medicine. Unfortunately, it is not always that the best and most statesmanlike men are elected. Too often it is the blatant orator who makes the greatest noise that imposes on the workmen and becomes their unworthy representative. In short, they are not fit for the task they undertake to perform. No doubt there are some really able men with well-balanced minds and considerable administrative powers but these are only too often overruled by the shallow and self-seeking men of the agitator class, the worthless windbags who seek the positions on the committees for the payment they may receive or for the notoriety and power it gives them.

The rule of such men is despotic in the extreme. They are devoid of the sympathy a master should have with his servant. Their sense of justice is undeveloped. They cannot appreciate the difference between the sensibilities of a highly educated gentleman and the blunter feelings of themselves. They take no thought of the dreary isolation he accepts when he settles among them, with perhaps not another man of his class to speak to, nor of the nauseousness of continually visiting the families of filthy and verminous people. The pride of place is too apt to unduly elate them and the newly acquired power of being able to order about a superior is sometimes displayed in a manner that may be described as vicious. They may themselves have served under harsh foremen or gangers and when they find themselves in a position to play the taskmaster it would seem that they take a savage glee in grinding the lives out of their servants, as if to avenge themselves on a class under whom they may think they or their fathers have suffered. Is this a surprising phenomenon? I think not. It is the same whenever mean men find themselves in authority. The surprising phenomenon is that medical men, presumably gentlemen, with the education that they have received and their knowledge of human nature, should degrade themselves by submitting to such masters.

Putting aside the question as to whether the doctors are properly remunerated or not, or whether their services are worth the money that is paid for them, do the workmen and their families obtain the greatest benefit by adopting the cheap contract system as at present constituted? From what I have seen of contract and club practice I think they certainly do not. Where some may do so, it is generally in an unjust manner by taking more than they have any right to. In certain districts the money collected from the men is to a great extent wasted. First, by the representative committee insisting on supplying their own drugs—so little confidence have they in the doctors of their own choice. In this they do not stint money—they waste it. Secondly, the individual workman, knowing that there are plenty of drugs, and that he has subscribed his 2*d.* a week, argues that they are his property and determines to have his share of them whether the doctor likes it or not. Consequently, for the most trivial ailment he sends for the doctor and demands attendance and medicine. This in many cases is due to thoughtlessness but in many others to pure selfishness. People in a better class of society, with similar slight ailments, do not so frequently send for a doctor; but the workman who, by virtue of his 2*d.* a week and contract, is able to command his services without additional cost to himself has no hesitation in doing so on every possible occasion, just as he comes to the out-patient department of a hospital and wastes its resources. Hence the medical man's services and the medicine are to a large extent squandered.

Some of the doctors seem to be regarded as storekeepers. The people come with their pots and bottles and demand cod-liver oil, castor oil, ointments, and what not; and the doctor, in fear of the terrible committee man, ever ready to listen to complaints against him and "report him," has not the moral courage to refuse, even in cases where he knows that they are unnecessary. He uses expensive drugs when inexpensive ones would be equally efficacious, for he has no interest in keeping down the drug bill. This prodigal supply of drugs may give the workman an impression that he is getting good value for his money, but what he gains in the supposed superiority of the drugs he loses in the necessarily scanty attention of the prescriber. For by his greed and abuse of the power that he has to command the doctor's attendance he makes such a large amount of work that his 2*d.* would never pay for enough doctors to do it properly. Therefore, in order to make ends meet, the committee counterbalances the wastage on drugs by cutting down the number on its staff until the doctor can just get through his work without dropping dead on the road. In the winter especially, and largely owing to trivialities, his visits become so numerous that it is absolutely impossible for him to examine his cases and give sufficient attention to the really serious ones. He is obliged to substitute guesswork for diagnosis. Small wonder, then, if he makes frequent mistakes and is held in little respect. True, he gets what is called "large experience," but however large his "experience" or excellent his drugs, good work cannot be done by overworked, tired out men, who have no time to think, and who, after doing years of such slipshod work, become superficial and comparatively worthless practitioners. The patients suffer in consequence. But as long as he is rushing about or dispensing medicines the committee man thinks he is being properly "worked." The idea that a doctor should sit down and read in order to keep up or improve his knowledge is scouted as preposterous. There is no ten-hours day for him, he is to work night and day as long as required. When he breaks down or dies the committee can get another and do the same with him. It thinks a surgeon should be "worked" in a precisely similar manner and yet be in a fit state to undertake any operation at any moment of the day or night. He also must not stop to read or think over his cases—it pays him to "work."

Such is the rule of the workmen's committee, according to the information that I have so far been able to obtain. Possibly some of your readers may have something more favourable to say of it. Is it surprising that in such circumstances some men who formerly had sufficient respect for themselves lose that respect and in their desperation become drunkards or drug themselves? Perhaps the most scandalous aspect of the case appears when we consider the question, for whom is all this medical work done? Is it for the poor and necessitous? No; it is for the man in receipt of regular wages, in the main for highly paid workmen who can afford to pay for their drinks, their pleasures, their excursions, and their doctors. Others there are who, like parasites, are content to drink the life-blood of their medical men and give nothing in return and who argue that as other people pay there is no reason why they should. A small part is made up of genuinely poor people who cannot pay and who object to parish relief but not to sweating or cheating the doctor.

It is of little use to point out evils without attempting to suggest their remedies. I contend that contract practice is not a necessity at all but that the regular collection of small sums from the wages of the working classes is necessary, because they are too thriftless voluntarily to save up money for the purpose of providing for medical attendance. The outline of the remedy I have to suggest is: that the amounts collected be paid into savings banks by the employers and set aside for medical purposes only, including dentistry, which is too much neglected by the working classes. The banking could surely be done by the Post Office. The money would belong to the workmen and not to any committee or society and would be deposited under these conditions.

1. It could only be paid out to medical men or dentists in settlement of their accounts for attendance, &c. 2. If in a time of stress the workman proved that he was threatened with starvation the doctor should be authorised to draw out anything standing to his credit and hand it to him to supply his immediate wants. 3. At the time of his death anything standing to his credit, after settling the doctor's account, should be paid to his relatives or as directed by will.

The advantages to the workman would be: 1. He could choose his own doctor and pay ordinary working-class fees in the majority of cases. 2. If he had not required all his savings to do this he would have something in reserve against dire necessity. 3. If he had been healthy he would at his death have something to leave to his family or pay for his funeral. 4. He would find doctors more willing to give their attention than they are likely to be when merely fulfilling a contract. 5. When he moved from one place to another he would still have the same amount to his credit.

The advantages to the medical man would be: 1. He would get working-class fees in the majority of cases. If at the time of illness the workman had not enough to settle his account he would have the first claim on the future savings, if any. Where first one doctor and then another had been engaged the claim of the first should be settled first. 2. His time and labour would not so often be wasted on trivialities, as the workman would have a distinct interest in avoiding the waste of his money on unnecessary attendance. 3. He would have the legitimate satisfaction of getting more money when he did more work. 4. He would avoid the humiliation of being compelled to attend patients who have no confidence in him, who do not want him, or who openly insult him. 5. He would be able to practise among the working classes with a better prospect of being able to make a living and without submitting to degrading and unjust conditions in order to insure himself against starvation.

In the case of broken-down families requiring a lot of attention and unable to get employment he would not be paid, but he would be free

to attend them gratuitously or to pass them on to the parish or the hospitals. In the latter case the cost would be distributed over other classes than the medical—a far more equitable condition. Hospital inquiry officers should have power to ascertain whether patients had money standing to their credit for medical purposes or not. Arbitrators to settle disputed accounts should be provided by the bankers; interest on deposits being arranged accordingly or a charge made on them. Employers who declined to collect the money gratuitously to be allowed to charge a small percentage for so doing. The amount to be paid in to be adjusted according to the healthiness of the neighbourhood or industry. Probably 4*d.* in the £ would be ample to commence with in most cases and less than that would be sufficient in others.

I am, Sirs, yours faithfully,

Victoria, Mon., Dec. 16th, 1905. H. S. ELWORTHY.

EYESIGHT AND HEARING TESTS ON AMERICAN RAILWAYS.

IN the course of an editorial article headed "Eyesight Test for Railroad Men" the *Scientific American* of Nov. 25th mentions that the examination which the employés of the New York Central Railroad have to pass includes (1) a reading test in which three-eighths inch type has to be read at a distance of 20 feet; (2) tests for position or form, consisting of models of semaphores placed in various positions at a distance of 20 feet; (3) a reading test for ordinary text, such as train orders, at an ordinary reading distance; and (4) colour sense which is tested first in daylight by displaying strands of worsted of over 100 varieties of colour, the men having to name the colours displayed, and, secondly, in a darkened room by placing glasses of different colours in front of a lantern. Finally, the hearing is tested at a distance of 20 feet, the men having to note the strokes of an acoumeter and to repeat words given by the examiner. The men are re-examined at the end of three years from the last examination and also after any accident in which they may have been present, after illness, and before promotion. This system, with occasional modifications, has been in force for ten or 12 years on most of the principal American railways and on some for an even longer period.

THE SEMI-TEETOTAL PLEDGE.

To the Editors of THE LANCET.

SIRS,—It is a matter of common knowledge that holiday seasons, especially the Christmas one, are often marred by excessive drinking, the result in many instances of nipping and treating. Surely the Semi-Teetotal Pledge, as it is called—i.e., a solemn undertaking to abstain from all intoxicating drinks except at the midday and evening meals—might be widely made use of at this time to guard against this evil. Pledge forms can be obtained free of charge from the secretary and our honorary treasurer, Major-General Henry Mackinnon, will be pleased to receive donations for the extension of the work at the offices, 4, The Sanctuary, Westminster,

I am, Sirs, yours faithfully,

F. S. WEBSTER,
Rector of All Souls', Langham-place, and Chairman of the Semi-Teetotal Pledge Association.

Dec. 18th, 1905.

"SCARLET FEVER" IN CHILDREN AFTER BURNS AND SCALDS.

AT the Hackney coroner's court on Dec. 16th Dr. W. Wynn Westcott held an inquest upon the body of a child, aged 19 months. The child had died in the Eastern Fever Hospital at Homerton on Dec. 13th. The case is noteworthy as we reported a very similar one (THE LANCET, Dec. 9th, p. 1743) from the same court only a fortnight ago. Three days before death the child had overturned a pail of hot water upon which it rested in trying to rise from the floor; a severe scald on the back resulted. The child was taken at once to the London Hospital, where after admission it was found to be suffering from symptoms of scarlet fever and was treated accordingly. The mother, an Austrian Jewess, could give no history of scarlet fever in her house. Dr. E. W. Goodall, the medical superintendent of the Eastern Fever Hospital, gave the medical evidence. He said the case presented the typical rash, a sore-throat, and a "strawberry" tongue. Death resulted from the combination of the circumstances related above. He had had considerable experience in the rashes which followed burns and scalds and he had, in conjunction with the late Dr. Washbourn, published some of his practical experience. These rashes were not merely septic rashes; indeed, in the case under consideration the characters were quite different; further, the children so affected did not become infected with scarlet fever after admission to the fever hospital. The so-called "puerperal scarlet fever" was usually a septic rash. Many of these cases which occurred after burns or scalds recovered.

THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

To the Editors of THE LANCET.

SIRS,—The recently published returns of the Royal College of Surgeons of Edinburgh show that though the total number of Fellows is 977, only 173 are resident in Scotland and 461 are credited to England and Wales. I wish to suggest the formation of an association of Fellows which might be done to strengthen the position of the College and to enlist the hearty support of the 460 non-resident Fellows, whilst at the same time securing for them authoritative information of College proceedings. At present, save for quarterly notice of meetings, they are quite in the dark as to what transpires at these meetings. The question of enlarging the list of examiners and including non-resident Fellows is also worthy of consideration and the furtherance of surgical progress by devoting some portion of the annual surplus to endowments of lectures would come up for discussion. The College took a great step forward when it decided to confer the Fellowship after examination. Has not the time come when the non-resident Fellows should take a greater share in the work and governance of the College?

I am, Sirs, yours faithfully,

J. DICKINSON LEIGH, M.D. Edin., F.R.C.S. Edin.

Bishop Auckland, Dec. 18th, 1905.

A PATENT COUGH MIXTURE.

THE funny medical story is very common in lay papers but it is not always as funny to medically instructed people as it appears to laymen. But the following story, which is new to us, is really droll. We quote it from the *Liverpool Daily Post* of Dec. 13th.

"A man went into a druggist's and bought a bottle of some patent stuff, which was advertised thus: 'No More Coughs. No More Colds. One Shilling a Bottle.' Three days later he went to the druggist complaining that his throat was stopped up and that he could scarcely breathe. 'I've drunk all that patent cough mixture,' he said. 'Drunk it!' yelled the man; 'why that's an indiarubber solution to put on the soles of your boots!'"

MOTOR-CARS FOR MEDICAL MEN.

To the Editors of THE LANCET.

SIRS,—Last week I put the Little Rover £110 car through a series of severe tests; the trials were made with two in the car, weighing over 14 stones each. On the flat we spun along merrily without a hitch, ordinary gradients were successfully negotiated, but the steep hills and heavy load proved more than the Little Rover could do with the ease one would wish. However, I was immensely struck with its performance and will not (without an ocular demonstration) believe that any other make of car and of equal horse power will do better, if as well. Admitting that the Little Rover car is excellent for its power, I am bound, after an exhaustive trial, to come to the conclusion that it is not strong enough to do the work of a country practitioner in a hilly district under all conditions of roads and weather. I am told that the eight horse-power Rover is the ideal medical man's car and I hope soon to have an opportunity of witnessing its performance over the same ground and with a similar load. The test I put the car to is a perfectly fair one and was restricted to roads which I have travelled regularly for the past 34 years. I am, Sirs, yours faithfully,

Aberystwyth, Dec. 19th, 1905. T. D. HARRIES.

MATERNAL IMPRESSIONS.

To the Editors of THE LANCET.

SIRS,—May I be allowed to supplement the interesting cases reported by Mr. G. Francis Smith in THE LANCET of Dec. 9th, p. 1728? I attended a woman in her first confinement 18 years ago. The child, a female, was born with hare-lip. I operated on the case within three months with a most satisfactory result, leaving only a linear scar and the marks of the pins. The next child, a boy, born the following year, was perfect (although the mother was anxious lest the child might have the same deformity as the first). Two years later a girl was born quite perfect. The following year a boy was born not with hare-lip but with a linear scar identical even to the pin scars as that on the lip of his sister five years older. Three years later another girl was born with hare-lip, on which I operated, but the child died some months afterwards from bronchitis. The last child, born four years ago, is perfect. I am, Sirs, yours faithfully,

Portsmouth, Dec. 11th, 1905. RICHARD EMMETT.

THE D.P.H. CAMBRIDGE.

A CORRESPONDENT asks us to put a request before our readers for information as to the examination for the Cambridge Diploma of Public Health. He asks what are the best text-books to read for this particular examination and, generally, for any information concerning preparation and practical work. Our recommendations of text-books in the Students' Number of THE LANCET are designed to be general.

FEES TO MEDICAL MEN WHEN SUMMONED BY MIDWIVES.

A CORRESPONDENT has written to us upon the following matter. He has been summoned in due form by a midwife more than once to attend to a patient. The patients have not been able to pay his fees and the "local supervising authority" declines to pay on the ground that it is not empowered to do so. A midwife when certain conditions arise in a case which she is attending "must decline to attend alone and must advise that a registered medical practitioner be sent for." When this is done she is further compelled by the regulations of the Central Midwives Board to keep a record in a prescribed form, a copy of which is to be sent to the medical man summoned. The friends of the patient call him in on the advice of the midwife, and the local supervising authority has no power to pay him. (See THE LANCET, Nov. 11th, p. 1418.) The case is one of hardship to the medical man who often has to choose between an attendance which will almost certainly be gratuitous and the risk of being blamed for heartlessness should a serious result follow his refusal. If he refuses to go the patient is apparently to be deprived even of the ministrations of the midwife. We are informed that the Manchester and Salford divisions of the Lancashire and Cheshire branch of the British Medical Association have decided that "the local supervising authority should be responsible for the payment of fees to medical

practitioners" in cases of this kind, but at present county councils and similar bodies have no power to pay such fees.

INEBRIETY writes:—"Can any of your readers tell me if 'sparteine can be substituted for 'atropine' in the injection treatment for alcoholism and morphinism, and where 'atropine' is not well borne?"

Worried.—In our opinion the surveyor is right. Our correspondent must pay his proportion of his predecessor's assessment; but at the end of the financial year, April 5th next, he is entitled to compute his income for the year then ending, and if he finds that he has paid tax on more than his actual income he can claim the repayment of the amount overpaid.

Miss F. M. writes to us in reference to finding a home for a tuberculous child, aged seven years, whose spine is affected. The mother of the child is a widow and cannot afford to pay anything in support of the child. If any of our readers can suggest any course to be pursued they are requested to write to 13, Glencairn-crescent, Edinburgh.

Chiro "can obtain official recognition as a surgeon" by entering one of the recognised medical schools, passing the examinations belonging to the medical curriculum, and paying his fee for registration. He will be fortunate if this costs him less than £800. The "profession of surgeon-chiropodist" does not exist.

Rob.—The medical adviser in the case can recommend the specialist who should be consulted and can also say if there is any feature in symptoms or treatment upon which a second opinion is wanted.

Dr. R. H. Steen.—We agree with our correspondent and are sorry that by a slip the term escaped correction.

Oxygen Baths.—Our correspondent will find information in THE LANCET of Nov. 4th, 1905, p. 1338.

J. G.—Such appliances are useless. No medical man holds any other view.

ERRATUM.—In the report of the Clinical Society's meeting which appeared in THE LANCET of Dec. 16th the name Mr. W. A. Davidson of Shepherd's Bush (p. 1773, paragraph 3, line 4) should have been given as Dr. J. Davidson of Uxbridge.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (25th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Children, Gt. Ormond-street (3 P.M.).

TUESDAY (26th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Central London Throat and Ear (2 P.M.), Children, Gt. Ormond-street (2 P.M., Ophthalmic, 2.15 P.M.).

WEDNESDAY (27th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Royal Orthopædic (3 P.M.), Children, Gt. Ormond-street (9.30 A.M., Dental, 2 P.M.).

THURSDAY (28th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Orthopædic (9 A.M.), Royal Ear (2 P.M.), Children, Gt. Ormond street (2.30 P.M.).

FRIDAY (29th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.), Central London Throat and Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M., Aural, 2 P.M.).

SATURDAY (30th).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St Mary's (10 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9.30 A.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE LANCET AT THE RAILWAY BOOKSTALLS.

READERS who usually obtain their copies of THE LANCET at the bookstalls on the Great Western, the London and North Western, and the minor systems in connexion with these railways, are requested to communicate with the Manager, 423, Strand, London, W.C., if they experience any difficulty in getting copies of THE LANCET at these bookstalls after Jan. 1st next, when Messrs. W. H. Smith and Son's connexion with them terminates.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, London, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will insure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 21st, 1905.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks
Dec. 15	30·42	N.	...	49	46	44	42	45	Cloudy
,, 16	30·32	WSW	...	46	45	41	40	42	Overcast
,, 17	30·35	E.	...	46	45	40	42	43	Overcast
,, 18	30·23	S.	...	48	46	43	42	44	Overcast
,, 19	29·95	S.W.	...	68	52	40	45	46	Overcast
,, 20	30·25	W.	...	52	50	38	40	42	Cloudy
,, 21	30·33	S.W.	...	59	52	42	47	50	Cloudy

During the week marked copies of the following newspapers have been received: *Notts Guardian, Dublin Express, Local Government Chronicle, Poor Law and District Council Journal (Dublin), Dublin Times, Birmingham Post, Surrey Advertiser, Freeman's Journal, The Scotsman, Evening News, Liverpool Mercury and Journal, Ilford Recorder, Daily News, Star, Westminster Gazette, &c.*

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